Austria ... Sch. 15	Indonesia .. Rp 2500	Portugal ... Esc 80
Bahrain .. Din 0.650	Italy ...... L 1300	S. Arabia .. Rls 6.00
Belgium ... BFr.38	Japan Y550	Singapore . S$ 4.10
Canada ... C$2.00	Jordan ... Fils.500	Spain .... Pta 110
Cyprus ... C£0.60	Kuwait ... Fils.600	Sri Lanka ... Rup 30
Denmark .. DKr.7.25	Lebanon .. L£ 6.00	Sweden .. SKr 6.50
Egypt .... E£1.00	Luxembourg . LFr.38	Switzerland SFr 2.20
Finland .. Fmk 6.00	Malaysia .. Rin 4.25	Taiwan ... NT $35
France ... FFr. 6.00	Mexico .. Pes. 300	Tunisia .. Din 0.600
Germany . DM 2.20	Morocco .. Dh 6.00	Turkey .... L 210
Greece ..... Dr 70	Netherlands . Fl 2.50	U.A.E. ... Dh 6.50
Hong Kong . HK$ 12	Norway .. NKr. 6.00	U.S.A. $1.50
India .... Rup. 15	Philippines . Pes. 20	

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,541 Monday February 4 1985 D 8523 B

Gibraltar reopens for better or worse, Page 14

World news

German hunger strikers give up

A hunger strike by jailed West German terrorists, which provoked a campaign of violence and bomb attacks, appears to be almost over after most of the 37 protesters gave up their fast.

The crumbling of the hunger strike, which began in December and was aimed at winning prisoner-of-war status for Red Army Fraction captives, was followed by signs that a sympathy strike by convicted terrorists in France was also ending. The strike has been backed by some 40 bomb attacks in West Germany and the killing last week of Dr Ernst Zimmermann, president of the country's space, air and arms industry association.

The increasing wave of terrorism in Western Europe is likely to rival economic issues in talks between Germany's Chancellor Helmut Kohl and Prime Minister Laurent Fabius of France in Bonn tomorrow. Page 2

Gibraltar pledge

British Foreign Secretary Sir Geoffrey Howe pledged that Britain would never agree to transfer Gibraltar's sovereignty without the consent of Gibraltarians. The colony's border with Spain reopens at midnight tonight and Anglo-Spanish talks on the Rock's future begin tomorrow. Page 2; Feature, Page 14

Freeze hits U.S.

Snow storms and freezing weather hit most of the U.S., including the "Sun belt." Meteorologists are trying to verify an automated equipment reading of 69.9 degrees Fahrenheit below zero registered at Peter Sink, Utah, which would be a record low for the country. World weather, Page 14

Official admits spying

An Indian official suspected of involvement in a spy scandal has admitted selling information for as little as $4 a time for more than two years, a Delhi magistrate said.

Greek bomb claim

A previously unknown organisation, the National Front, claimed responsibility for a bomb explosion at a bar near a U.S. air base in Greece that injured at least 78 people, most of them American servicemen. It said it carried out the attack because the U.S. was responsible for "the continued situation in Cyprus."

Salvador truce hope

A campaign to vaccinate 600,000 Salvadorean children began amid hope that fighting between the country's left-wing guerrillas and U.S.-backed army would stop to allow doctors to work unhindered. Page 2

Saudi Gulf initiative

Saudi Arabia, backed by the Gulf states, has joined Syria, Algeria and France in a new initiative to end the Iran-Iraq war, a Kuwait newspaper reported.

Castro seeks detente

Cuban leader Fidel Castro expressed readiness for improved relations with the U.S. and offered co-operation in reaching international peace settlements in Central America and Angola. Page 2

Tutu warning

Nobel Peace Prize laureate Bishop Desmond Tutu, installed as the first black bishop of Johannesburg, said he would call for punitive economic sanctions against South Africa unless steps were taken to dismantle apartheid within two years. Page 2

Hawke under fire

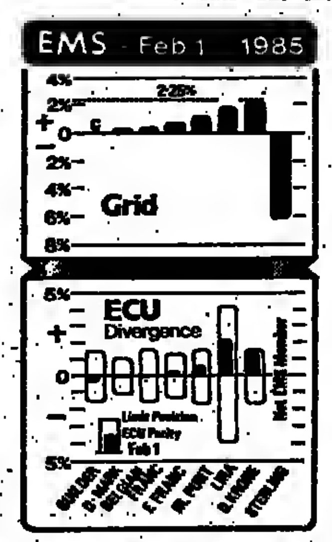
Australian Premier Bob Hawke is under fire in his Labor Party over his Government's agreement to co-operate with the U.S. in MX nuclear tests in the South Pacific. Hawke holds EEC talks, Page 3

Business summary

China to compete in satellite launching

CHINA intends to compete with organisations in the U.S. and Western Europe in putting satellites into orbit with rockets, China's vice-minister of aeronautics, Li Xu-e, said. Page 14

CURRENCIES in the European Monetary System showed little overall change last week as the dollar remained confined to its recent trading range on fears of central bank intervention. Most attention was focused on sterling and its reaction to the latest Opec meeting. The D-Mark showed little reaction to a half-point increase in the West German Lombard rate but the move prompted the Dutch central bank to increase its discount rate half a point to 5½ per cent. The Dutch guilder was still the weakest member, however, while the Belgian franc paused after its recent steady improvement.



The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

TOKYO stocks fell sharply during Saturday's half-day session, depressed by the yen's steep fall against the dollar. The Nikkei Dow market average shed 57.40 to 11,889.56. Page 24

FRANCE is today launching its first state bond of the year, totalling FFr 15bn, to help finance the government deficit. Page 17

FRENCH Government won support of the bulk of trade unions for a wage settlement that will limit increases in the public sector this year to 4.5 per cent Page 2.

CHINA expects to spend well over $1bn this year on imports of technology from more than 1,000 different product groups to help to modernise its economy. Page 3

INTERNATIONAL AERO Engines, the British-Italian-German consortium, is to provide engines for the new version of McDonnell Douglas's 150-seat MD-80 airliner. Page 3

MR T. BOONE PICKENS has expressed surprise that Phillips Petroleum's controversial recapitalisation plan, which he precipitated through his hostile takeover attempt last December, had been "misunderstood" by the public. Page 17

AMERADA HESS, the secretive U.S. oil company, has reported a $4m fourth-quarter loss. Full-year earnings fell 17 per cent to $170.5m. Page 17

TAFT BROADCASTING, the Cincinnati-based media group, is buying 12 TV and radio stations from the Dallas-based Gulf Broadcast for $755m in a move that will increase Taft's share of the U.S. TV audiences from 9 per cent to 15 per cent. Page 17

We apologise for any typographical errors in today's edition arising from industrial action by members of the National Graphical Association in the proofreading room in London.

Reagan launches drive to rein in overspending

BY STEWART FLEMING IN WASHINGTON

PRESIDENT RONALD Reagan launched a campaign for public support for the 1986 budget proposals which he will formally send to Congress today, describing them as "the most exhaustive effort ever made to rein in the Government's chronic overspending."

Even before Congress begins to debate the details of the President's recommendation that it increase government spending by only 1.5 per cent to $973.4bn in the fiscal year beginning in October, leaders of the President's own Republican Party were making clear they would seek fundamental changes in the way the budget dollars are divided.

Mr Robert Dole, Senate Majority Leader, said yesterday that he favoured a rise of only 3 per cent in defence spending in real terms rather than the 5.9 per cent Mr Reagan is proposing.

Defence spending, which the President is seeking to increase from this year's estimated level of $246.3bn to $277.5bn in 1986 and $348bn by 1988, is the only big area of government spending for which the President proposes big increases. Included in this plan is a proposal to almost triple to $3.7bn expenditure for the controversial Strategic Defence Initiative, the so-called "star wars" space defence system and $4bn for the new MX missile.

To make room for the continued expansion of the military budget and the rise in the costs of servicing a federal debt expected to hit $2 trillion (million million) in 1986, President Reagan will propose a wide range of cuts and freezes in other areas of domestic spending with the avowed objective of cutting back the size of the federal Government. Many of these changes, too, are running into opposition on both sides of Capitol Hill.

Details of the President's budget plan have been widely leaked in advance as the Administration has sought to test the mood in the country for the proposals it will make.

In the area of the Agriculture Department, the President is already retreating from the economies the Administration is seeking. In the face of a mounting financial crisis in the farm belt, officials are negotiating with Congress over a package of financial support measures for hard-pressed farmers.

It is also clear that despite the $51bn of spending cuts which Mr Reagan will ask Congress for, he will fail to reach his avowed target of reducing the federal budget deficit to about 2 per cent of gross national product by the end of the decade, a goal which many economists believe is desirable if interest costs of the federal debt are to be brought under control.

Indeed, the outlook for the budget deficit and the history of recent efforts to control budget deficits, are creating concern that government

Continued on Page 14

Details, Page 2

PROPOSED SPENDING IN FISCAL 1986
(Fiscal 1985 in brackets)

National defence:	$285.7bn ($253.8bn) – of which
Pentagon:	$277.5bn ($246.3bn)
International Affairs:	$18.3bn ($19.6bn)
General science, space and technology:	$9.3bn ($8.7bn)
Energy programmes:	$4.7bn ($8.2bn)
Natural resources and environment:	$11.9bn ($13bn)
Agriculture:	$12.6bn ($20.2bn)
Commerce and housing credit:	$2.2bn ($6bn)
Transport:	$25.9bn ($27bn)
Local and regional development:	$7.3bn ($8.6bn)
Education, training and social services:	$29.3bn ($30.4bn)
Health, including medicaid:	$34.9bn ($33.9bn)
Social security and medicare:	$269.4bn ($257.4bn)
Income security:	$115.8bn ($127.2bn)
Veterans' programmes:	$26.8bn ($26.8bn)
Justice:	$6.6bn ($6.7bn)
General government, including Congress:	$4.8bn ($5.8bn)
General purpose fiscal assistance for state and local governments:	$2.8bn ($6.6bn)
Interest on national debt:	$142.6bn ($130.4bn)

Aid plan for farm debts

BY NANCY DUNNE IN WASHINGTON

MR JOHN BLOCK, the U.S. Agriculture Secretary, said yesterday that the Reagan Administration would announce emergency credit for many of the nation's debt-ridden farmers this week, but with 150,000 producers reportedly on the brink of collapse, Congress seems prepared to go even further than the Administration.

In a television interview, Mr Block defended the Administration's proposal to reduce price support by $16bn over the next five years.

"We all know we are going to lose some farmers," he said. "We know it is difficult out there but solutions are not easy to come by."

He said the Administration was proposing lower price support and a phase-out of farm subsidies to push agriculture towards a free market solution because "farmers do not want to be wards of the state."

Having tried and failed to win support from farm states' legislators for the Administration's programme in exchange for short-term aid Mr David Stockman, the U.S. budget director, is reported to have agreed to a scheme that will help some farmers by encouraging banks to reduce interest rates on farm loans, in return for more government guarantees on 90 per cent of the loans.

However, farm states' Congressmen are prepared to do more. Senator James J. Exon, a Nebraska Democrat, and Mr David L. Boren, an Oklahoma Democrat, have notified the Senate majority leader that when the Senate returns from its recess next month, they will introduce a farm credit Bill. They say they will halt more consideration on any other issues until they get action on their Bill.

Representative William H. Gray III, chairman of the House Budget Committee, attacked the Administration's proposals yesterday.

"I am amazed in the light of the fact that his (President Reagan's) structural deficit has created havoc for the small farmers and for the American agricultural community, that he comes back and proposes cuts on rural water, rural electrification and rural housing programmes, as well as the direct loans to the small farmer."

Appearing on the same television programm with Mr Block, Mr De Von Lawn, president of the National Farmers' Organisation, said that by some projections, 50 per cent of all U.S. farmers might be facing bankruptcy by February 1986. "Farmers have given their life savings, they have given their farms. Agriculture is going to say 'No more', and they are going to take to the streets."

Olivetti chief buys majority control of IBP-Perugina

BY ALAN FRIEDMAN IN MILAN

SIG Carlo de Benedetti, chairman of Olivetti, has bought majority control of the Buitoni family's IBP-Perugina, the Perugia-based international foods group. No price was disclosed but Sig de Benedetti is believed to be paying at least $40m.

Sig de Benedetti's takeover was announced just as Gervais Danone, the French foods group, was nearing what it regarded as its own purchase of IBP.

The takeover adds a large company to the Olivetti chairman's expanding empire of financial and industrial holdings.

The weekend acquisition of 53 per cent of IBP shares from the Buitoni family and a further 10 per cent from Mr Gaith Pharaon, a Saudi Arabian financier, was handled by CIR, Sig de Benedetti's personal holdings company.

The IBP group products include Perugina chocolates and Buitoni pasta products. It had 1983 sales of L963bn ($493m), of which more than half came from markets outside Italy. However, the company is facing a shortage of capital, L200bn of debts, and losses in its American and Italian food subsidiaries.

Sig Carlo de Benedetti

Sig de Benedetti's private holdings now include stakes in Olivetti, Espresso the newspaper publishing group, Italmobiliare, the engineering, property, steel and financial group, and Euromobiliare merchant bank.

He also has a holding in the Pirelli tyres and cables group and is hoping soon to buy a big participation in the Mondadori publishing group.

Sig de Benedetti described the acquisition of IBP in terms of the growth of CIR, his Turin-based holdings company. Apart from being a holding vehicle, CIR also has tobacco machinery manufacturing and tanning activities in its own right.

Some of Sig de Benedetti's critics, however, fear he is too much of an empire builder and needs to spend more time on Olivetti and its marketing troubles in the U.S. Olivetti is working on a new U.S. strategy.

IBP, which has been for sale for more than a year, made a L17.5bn loss in 1983. Last year a takeover by Poulain, the French confectioner, fell through. The same has now happened to Gervais Danone.

Sig de Benedetti's offer for the company, the negotiations and the signing of an agreement at the weekend are said to have taken no more than 24 hours.

Citicorp, Cigna drop debt policy

By William Hall in New York

CIGNA, the U.S. insurance company, has scrapped its $900m insurance policy under which it agreed to cover Citicorp, the biggest banking group in the world, against losses on some of its loans to financially troubled Third World countries.

The decision to end the eight-month-old arrangement came as a surprise to many observers who thought that the novel insurance policy might be followed by other international banks anxious to protect their shareholders against the risks of the Third World debt crisis.

Neither Citicorp nor Cigna elaborate on the reasons for ending their insurance contract. Late last Friday the two groups issued a brief statement from Philadelphia Cigna's base, saying they had "agreed to terminate their further obligations under a contract of convertibility and risk insurance entered into by a wholly owned subsidiary of Cigna with Citicorp on May 17, 1984."

The two companies would only say thet "market conditions have changed since that time, and the parties have agreed to the termination of the agreement on the basis of a mutually acceptable business compromise".

Although there has been considerable interest in Citicorp's attempts to insure itself against losses on its $12bn of loans to Argentina, Mexico, Brazil, Venezuela and the Philippines, details of the insurance policy have been vague, and there had been reports that it had run into problems with U.S. insurance industry regulators.

The insurance contract was first disclosed in a routine filing with the U.S. Securities and Exchange Commission (SEC) by Citicorp last year.

In a footnote to a table on its foreign loan exposure, Citicorp noted that it had acquired $900m of convertibility and transfer risk insurance in its second quarter of 1984.

The insurance covering certain important developing countries protected the bank against the risk of large losses from prolonged delays in receiving funds from a country because of a government's inability or refusal to make the foreign exchange available.

Citicorp's insurance policy was taken out during a period when there was considerable concern that some of the world's most heavily indebted countries would not be able to meet their obligations to international banks and there were signs of considerable nervousness in the financial markets. U.S. bank shares fell sharply last May and there was talk of a "flight to quality" by nervous investors.

UK coal board expects surge back to work

BY JOHN LLOYD, INDUSTRIAL EDITOR, IN LONDON

THE majority of Britain's miners leaders will continue to refuse to sign an agreement with the National Coal Board (NCB) that uneconomic pits should close – even if many miners return to work in the next few weeks.

The NCB believes that many thousands of miners will return, although some believe the build-up to a "surge" will take some days.

The debate on the coal industry mounted today in parliament by the Labour Party will concentrate on calling for a resumption of talks and a meeting between the National Union of Mineworkers' leadership and Mr Pat Lowry, chairman of the Advisory, Conciliation and Arbitration Service, may keep alive faint hopes of a negotiated settlement.

Further pressure on the miners to return to work came last night with the news that 500 jobs had been lost at the Frances pit, in Fife, Scotland. The pit's one face had been burning for the past two weeks, and now has to be sealed off.

A Scottish NCB official said that a further 1,800 jobs at the Seafield complex, to which Frances is linked, might also go if a second fire were not controlled.

He blamed the Scottish NUM for not instructing members to control the fire by cutting coal. Mr George Bolton, the Scottish NUM vice-president, rejected the charge. He said the union had sent men down the pit.

Union leaders bave discussed a range of options for the future. They include:

- Continuing to press for talks with the NCB, but at the same time continuing to prosecute the strike as vigorously as possible.

NUM leaders believe that in that way they will retain their militant position, even if they lose their members.

- Ending the strike without an agreement. That has found favour with some executive members. Its advantages are that the union would not be compromised by any agreement on uneconomic pits, but would be able to "live to fight another day," as one executive member put it yesterday.

Mr Arthur Scargill, the NUM president, said at the weekend that that plan was a "complete fantasy."

- Calling on the Trades Union Congress to re-convene Congress. That proposal came from an area conference of the South Wales miners over the weekend, and will be raised at the NUM executive meeting this Thursday.

South Wales leaders are calling for more support from the trade union movement, but are also looking for a new initiative to break the negotiating deadlock.

Mr Michael Eaton, the NCB communications chief, yesterday refused to give any forecast on numbers returning – but said they would "accelerate."

Coal board enigma, Page 5

Buhari offers hope of return to civilian rule

BY MICHAEL HOLMAN AND PATTI WALDMEIR IN LAGOS

NIGERIA'S military leader, Major General Muhammadu Buhari, has held out for the first time the prospect of an eventual return to civilian rule, preceded by a referendum to choose an appropriate political system.

He implied that that would come only after three "very tough" years of economic adjustment.

In an interview with the Financial Times, General Buhari, who took power in a New Year's Day coup in 1984, reasserted Nigeria's rejection of the International Monetary Fund's terms for a $2.4bn loan.

He also made clear that Britain's treatment of the case of Alhaji Umaru Dikko, a former minister wanted for alleged offences in Nigeria, had soured relations between the two countries.

He warned, too, that Nigeria would continue to match Britain's North Sea oil prices even if that meant undercutting the new price agreement reached by the Organisation of Petroleum Exporting Countries, in Geneva last week.

Speaking at his Dodan barracks headquarters in Lagos, General Buhari said he did not believe that the British and American political systems adopted by the first and second Nigerian republics respectively, were intrinsically unsuited to the country.

"I do not believe it is the Westminster or Congressional system that failed." He thought the Nigerian politicians had failed.

General Buhari suggested thet Nigerians should be allowed first to

Continued on Page 14

CONTENTS

French unions back public sector pay pact

BY DAVID HOUSEGO IN PARIS

THE FRENCH Government has won the support of the bulk of the unions for a wage settlement in the public service that will limit increases for public employees this year to 4.5 per cent, in line with the Government's officially targeted inflation rate.

The Government sees the agreement as an important success in that it has resisted demands for extra increases in excess of inflation to compensate for poor increases in previous years.

A key element in the Government's anti-inflation strategy is to seek to hold down wages.

The unions have found consolation in that the agreement contains a vaguely-worded safeguard clause permitting an additional increase if the 1985 inflation rate proves higher than official expectations.

This would be negotiated in the early months of 1986 — or just before the legislative elections when the Government will be in no mood to be tough towards the 4.2m public employees who have traditionally been among the Left's supporters.

In macro-economic terms, the Government believes there could be some case for increasing the level of domestic demand through salary increases later this year or early next, if the fragile recovery in French industrial investment is not sustained.

The compromise between unions and Government is in sharp contrast to last year, when the Government had to impose a wages settlement following the breakdown of negotiations with the unions.

This year, the teachers' union —the largest in the public service — is ready to sign the agreement. The pro-Socialist CFDT and the centrist FO (Force Ouvriere) union are hesitant. Only the Communist-led CGT is totally against.

The level of wage increases in the public sector normally has an important influence on private sector settlements.

The holding-down of real wages over the past two years under the impact of the Government's pay policy has been the main factor enabling industry to reconstitute its profit margin.

The agreement in the public service provides for increases of 1.5 per cent each on February 1, July 1, and November 1. Overall, it means an increase in public-service salary costs of 5.2 per cent which is also within the budgetary projections.

Engineering groups warn EEC against steel price rise

BY TONY WALKER IN CAIRO

ENGINEERING companies in the EEC have warned the European Commission that any increase in minimum steel prices will damage their competitiveness, harm their production prospects and hinder their investment plans.

Orgalime, the industry federation embracing companies throughout the Community, has told Mr Karl-Heinz Narjes, the new commissioner for industry: "We must underline our total opposition to any increase in the minimum prices in the near future."

The Commission is considering demands from Eurofer, the steelmakers organisation, for an average rise of 3 per cent in prices from April 1. This would come on top of an increase which came into effect last October.

The general policy of the Commission as guardian of a plan to restructure the EEC steel industry and administrator of an elaborate system of price controls and production quotas, is to push prices up as high as the market will stand.

But it has to balance off the needs of the producers for higher revenues, both to pay their pay and finance the costs of restructuring, with the needs of consumers.

Orgalime is intervening in the Commission debate at this stage to avoid a repetition of the events of last September when it felt that the Commissions duty to consult it on changes in the steel controls was observed in the letter but not the spirit.

At that time the Commission, in the view of consumers, had made up its mind to raise prices before it engaged in consultations.

Orgalime, in a letter to Mr Narjes, reminded him that the latest round of minimum prices has not been holding.

The key point in its letter is that "at this stage of market development the minimum prices which are said to have been proposed by Eurofer cannot in our view be absorbed by the Community market."

Bonn stands firm on plans for car emission controls

BY JOHN DAVIES IN FRANKFURT

THE WEST German Government is holding firm to its controversial plans for tighter car emission controls despite pressures for a European Community compromise making special provision for smaller cars.

An official of the Interior Ministry—which is concerned with environmental controls—said in Bonn yesterday that West Germany still had not reached any agreement with its EEC partners and no compromise solution was in sight.

EEC officials in Brussels have been intensifying their efforts lately to narrow the gap between West Germany and some of its partners, notably France, Italy and the UK, in the hope that basic agreement can be reached at a ministerial meeting on March 7.

One possible compromise under study involves different emission standards and different target dates for different sizes of cars—small cars with an engine capacity of up to 1.3 litres, medium-sized vehicles up to 2 litres engine capacity and larger cars.

Determined to be in the forefront of environmental improvement, the West German Government decided last September that it would require new cars to observe U.S. emission standards by 1989 (and by 1988 in the case of larger cars with an engine capacity of 2 litres).

It has also drawn up an elaborate scale of motor vehicle taxes to encourage motorists to buy new "environment-friendly" cars before these target dates and to attach anti-pollution devices to existing cars.

Italy and France claim that the extra costs involved will be felt as a burden by motorists with modest incomes and smaller cars. Many motor industry executives also believe that it is inappropriate simply to take over U.S. emission standards and that further improvements in engine technology would be a better way of tackling the problem.

The Bonn Government is hoping to create more clarity on the issue through a speedy EEC agreement but is reluctant to lose face through a compromise. Herr Friedrich Zimmermann, the Interior Minister, has already been obliged to tone down his original plan to introduce compulsory emission controls from next year.

Howe renews pledge on future of Gibraltar

BY ROBERT MAUTHNER, DIPLOMATIC CORRESPONDENT

SIR GEOFFREY HOWE, Britain's Foreign Secretary, yesterday gave a renewed pledge that Britain would never agree to a transfer of sovereignty over Gibraltar without the consent of the Gibraltarians.

Sir Geoffrey, interviewed in the Independent TV programme Weekend World, also stressed that this view was basically shared by the Spanish Government.

The Foreign Secretary's remarks were made on the eve of the opening of talks in Geneva tomorrow between Britain and Spain on the future of Gibraltar.

The one-day meeting will follow the full opening of the border to all traffic between Gibraltar and Spain at midnight today, as provided under the Brussels agreement reached by Britain and Spain in November last year.

The border, closed by Gen Franco's Government in 1969, has been open to pedestrian traffic only for Gibraltar and Spanish citizens since 1982.

Sr Fernando Moran, Spanish Foreign Minister, interviewed in the same programme, confirmed the Spanish Government's desire to avoid a clash with Britain over Gibraltar at a time when Spanish entry into the EEC has not yet been finalised.

Bomb blasts rock three W. Beirut banks

By Richard Johns in Beirut

VIOLENCE AND the drift towards anarchy in the predominantly Moslem half of West Beirut took on a new seriousness at the weekend, as bombs exploded outside three banks, and the exchange rate for the Lebanese pound sank to a record low.

Responsibility for the blasts was claimed by the Islamic Jihad organisation's "Brigade for Protecting the Poor in Lebanon."

The Saturday attacks, which left four people injured, were related to the further weakening of the Lebanese pound, which at the close on Saturday stood at 13.30 to the dollar compared with 12.52 on Friday. At one point it fell to 14 to the dollar, dealers said.

Bankers believe that the attacks may have been stimulated by the decision of Mr Nabih Berri, the main political leader of the Moslem Shi'ite sect, and Minister of Justice, to order the public prosecutor to investigate suspected currency manipulation.

Speculators

Mr Berri has said that speculators could not be allowed to "skin the Lebanese people alive" economically.

The decline of the pound has been the major cause of inflation in Lebanon, where 70 to 80 per cent of goods consumed locally are imported. Senior economists reckon that prices rose by about 50 per cent last year, though official estimates put the rate at half that.

After a Cabinet meeting on Saturday night—which was joined by Mr Edmond Naim, Governor of the Central Bank, and representatives of the Bankers' Association—Mr Rashid Karami, the Prime Minister claimed the Government had discovered "a conspiracy" against the Lebanese economy and currency, but gave no details.

His comments were widely regarded here as trying to find a scapegoat for a problem arising basically from looming state bankruptcy, the exhaustion of foreign exchange reserves and the failure of the National Unity Government to assert its authority and bring about a modicum of security in areas under its control.

At a meeting late last month, the Bankers' Association reached a "gentleman's agreement" to curb speculative currency transaction and to follow guidelines aimed at minimising day-to-day fluctuations in rates.

Earlier, members had agreed to channel dealings through Société Financière du Liban, the discount house owned by 33 banks and the secondary market in government treasury bills.

Interbank

In an interview last week, Mr Nasim Saliba, chairman of the company, estimated that 75 to 80 per cent of dealings had been made through it, with the rest of the business being done through interbank transactions. On the currency crisis day of January 25, banks had undertaken to cease doing business through brokerage firms.

Mr Berri is also leader of the Shi'ite Amal Militia, which controls the greater part of West Beirut.

The shadowy Islamic Jihad organisation, in whose name the slaughter of U.S. marines in 1983, and the bombing of the U.S. Embassy this year, was claimed, is thought to represent the Shi'ite extremist fringe, or possibly not to exist at all.

Some diplomats believe the name may simply be used as cover for all sorts of violence by those wishing to destabilise Lebanon. They think the latest explosions could well have been the work of Communist, or left-wing, elements.

U.S. BUDGET FOR FISCAL 1986

Reagan seeks 1.5% rise in spending

BY OUR U.S. STAFF

PRESIDENT Ronald Reagan's budget call for spending of \$973.7bn (£885bn) in fiscal 1986, which begins on October 1 is a 1.5 per cent increase over the \$959.1bn the Government estimates for the current year, fiscal 1985.

BUDGET DEFICITS	1985	1986	1987	1988	1989	1990
On present basis without policy changes:	223.6	230.3	245.6	247.8	232.8	224.4
With cuts and savings proposed in budget:	222.2	180.0	164.9	144.4	107.5	82.4

Years are fiscal years, e.g. fiscal 1986 starts October 1, 1985.

The growth rate in federal spending envisaged is the lowest since 1965, and amounts to a reduction in real terms, given that the Administration is estimating inflation at 4.3 per cent.

The overall concept is a "freeze" on government spending, in which increases of about \$30bn in the defence budget are offset by similar reductions elsewhere.

Spending cuts are proposed for eight of the 13 Cabinet departments, including Agriculture, Education, Energy and Housing and Urban Development.

The savings proposed for 1986 would reduce the budget deficit to \$180bn, against the \$222.2bn now forecast for 1985.

Projected spending in the coming year would be cut by \$47.5bn, of which \$38.8bn would be in domestic programmes and \$8.7bn would come from defence.

Another sum of almost \$3.3bn would be accounted for by reduced interest rates on government borrowing.

The savings would amount to \$239bn over three years. The budget should decline from almost 25 per cent of Gross National Product this year to about 21 per cent by 1990, according to the Government's projections.

The spending reductions are somewhat less than the \$50bn cuts for 1986 being sought by Senate Republican leaders.

By 1990, the deficit would still be over \$80bn—compared with Mr Reagan's original pledge to balance the budget by 1984.

The 1988 deficit would be \$144.4bn (or 2.9 per cent of GNP)—considerably short of the Administration's initial target of only about \$100bn by that year.

The major increases for 1986 are in defence, where Mr Reagan is seeking \$313.7bn in spending authority—a real increase of 5.9 per cent over this year. Actual spending outlays would rise from \$246.3bn this year to \$277.5bn in 1986.

Outlays always run below spending authority, which includes the commitment of funds to be spent in future years. Actual military outlays are projected to reach \$418.3bn in 1990, representing 35 per cent of total spending for that year, against 26 per cent this year.

For the coming year, Mr Reagan is calling for big increases in new spending on nuclear weapons and space research, with the avowed aim of strengthening the U.S. bargaining position in the forthcoming arms negotiations with the Soviet Union.

Research on space weapons would be nearly tripled from \$1.3bn to \$3.7bn. Some \$4bn would be allocated for 48 more MX inter-continental ballistic missiles—up from \$2.8bn in this year's budget.

Production would continue of all the major weapons planned by Mr Reagan as part of his strategic build-up, with a request of \$6.2bn for 48 B-1 bombers and \$624m for research into the proposed new small, mobile, single-warhead missile known as the Midgetman.

There would be a 30 per cent increase to \$262m in funds for the Air Force's anti-satellite weapon.

The overall increase in the defence budget, however, would be the lowest since Mr Reagan took office four years ago.

Mr Gaspar Weinberger, Defence Secretary, has already cut \$35.9bn from the original request he compiled just over a year ago, although that will not be enough to satisfy Congress, which is demanding further substatntial reductions.

The domestic savings are to be achieved by freezing most programmes at this year's levels, reducing others and eliminating 25 major programmes entirely — including subsidies for the Amtrak railway system, the Small Business Administration and direct loans by the Export-Import Bank.

Cost-of-living increases for federal pensions and some benefit programmes would be frozen for some years, although a number of programmes for the poor would be adjusted for inflation.

Pay for federal employees — including civilian Pentagon employees — would be cut by 5 per cent from 1985 levels, and the administrative costs of government, including Congress, would be cut by 10 per cent.

The largest savings would be in agriculture, \$5.5bn; Medicare, \$4.1bn; income security programmes, \$5bn; general revenue sharing for the states, \$3.4bn; education, training and social service programmes, \$2bn; and veterans' programmes, \$1.1bn.

Brazil debt deal 'only needs IMF green light'

By Andrew Whitley in Rio de Janeiro

A GREEN light from the International Monetary Fund, to Brazil's bank advisory committee in New York, is believed to be all that remains to wrap up the largest, and most far-reaching, debt renegotiation package in history.

Reports from New York over the weekend say that outline negotiations, between Brazilian Government officials and the 14 bank Advisory Committee, were concluded on Friday, with only minor technical details remaining to be settled.

According to usually well informed press reports here, the \$45.3bn (£40bn) package includes: a 16-year repayment term, a 7-year grace period — although some repayments will begin immediately — and an average "spread" over Libor of 1¾ per cent.

Sr Affonso Celso Pastore, the central bank governor and head of the Brazilian delegation, was on his way back to Brazil this weekend, following a brief statement from the committee that "substantial progress" had been made in the six weeks' long talks.

Everything now depends on M Jacques de Larosiere, the IMF managing director. His difficult task will be to decide whether despite Brazil's consistent failures on the domestic side of its adjustment programme, there are grounds to justify endorsing the rescheduling package reportedly agreed in principle with the banks.

A technical mission from the IMF is due in Brazil this week. Led by Mr Thomas Reichman, head of the Fund's Atlantic Division, its ostensible purpose will be to check the country's economic performance in the last quarter of 1984 and to negotiate new goals for this year.

This is required before authorisation can be given for the disbursement of the next \$350m tranche of the IMF's Extended Fund Facility Loan to Brazil due on March 1. Failure to disburse this loan would be interpreted negatively by Brazil's 740 bank creditors around the world.

In practice the mission will probably be looking closely at whether the outgoing Figueiredo Government, due to hand over power in six weeks' time, is taking adequate measures over the control of the money supply and public spending.

In Washington last Friday, where he met President Ronald Reagan and Mr George Shultz, the U.S. Secretary of State, Sr Tancredo Neves, Brazil's president-elect, said that agreement on a renegotiation package would be more difficult if it were not concluded before he takes office on March 15.

Tutu 'prepared to call for disinvestment'

BY JIM JONES IN JOHANNESBURG

BISHOP DESMOND TUTU, the Nobel Peace-Prize Laureate, yesterday unequivocally stated his preparedness to break the law and call for disinvestment unless South Africa dismantles Apartheid.

In his sermon to a congregation of some 2,000 at his enthronement in St Mary's Cathedral as Bishop of Johannesburg, Bishop Tutu pledged he would call for punitive economic sanctions against South Africa, whatever the legal consequence, unless Apartheid is dismantled within 18 to 24 months.

The Bishopric of Johannesburg is the second in the South African Anglican hierarchy, while the diocese, which includes the black township of Soweto and which has a predominantly black membership, is the most influential in the country.

While stressing the need for Christian fellowship in South Africa's divided society, Bishop Tutu made clear that blacks were not seeking "an amelioration or improvement of the Apartheid dispensation," such as are brought about by the various labour practice codes.

"Our concern," he said, "is to see Apartheid dismantled."

Bishop Tutu was at great pains to correct impressions South Africans have of him as an advocate of violence, to heal the divisions in the Church caused by his appointment as Bishop of Johannesburg and to dispel any fears that he was more a politician than a priest.

He admitted that disinvestment would lead to hardship for blacks but cited last November's two-day general strike as evidence that blacks were "ready to accept additional suffering if it will change Apartheid."

In calling again for dialogue between black and white, Bishop Tutu welcomed indications that the Government may now be talking to the African National Congress (ANC).

He repeated an earlier offer to act as an intermediary between the Government and the ANC.

Calming fears that travel would take precedence over his diocesan duties, Bishop Tutu said that he had turned down virtually all the countless invitations involving travel which he had received.

Israeli Cabinet to meet over planned price rises

BY DAVID LENNON IN TEL AVIV

THE ISRAELI Cabinet will meet in emergency session this evening to discuss last-minute objections by some ministers to the price increases which were due to go into effect this morning.

Prices in Israel on 400 items were due to rise by between 5 and 20 per cent as the three-month "package deal" controlling prices, wages and taxes ended last night to be replaced by a new, more flexible "package deal B."

The first agreement dramatically curbed inflation, reducing the monthly inflation rate from over 20 per cent in the months preceding the package deal, to under 4 per cent in December.

The last-minute review by the Government comes in response to protests by some manufacturers and professionals that the new prices are too low to allow them to operate profitably in the wake of the increased costs of various goods and services.

Government subsidised goods went up by 20 per cent last week and are expected to rise by another 25 per cent this month. Postal rates rose yesterday by 100 per cent.

Meanwhile Israel's foreign currency reserves fell \$2[illegible] (£251m) in January to stand at \$2.3bn, which is equivalent to less than three months' worth of imports, generally regarded as the minimum which should be held.

Egypt to press U.S. for extra \$1bn in aid

BY TONY WALKER IN CAIRO

EGYPT is pressing its case for an additional \$1bn (£909m) in U.S. aid to match that given to Israel, with a concerted lobbying effort in Washington.

Three Egyptian Ministers will visit the U.S. this week to argue for an increased allocation and to prepare the ground for the trip to Washington in March of Egypt's President Hosni Mubarak for talks with President Ronald Reagan on economic assistance and U.S. participation in Middle East peace efforts.

Dr Kamal El-Ganzouri, Minister of Planning and International Co-operation, who is directly responsible for the aid programme, is now in Washington for talks with U.S. officials, among them Mr Peter McPherson, head of the Agency for International Development.

Dr Esmat Abdel Meguid, the Foreign Minister, will also be in Washington this week for meetings with Mr McPherson, Mr George Bush, the Vice-President, and Mr George Shultz, Secretary of State.

A third minister, Field Marshal Abdel-Halim Abu Ghazala, begins a 10-day visit to the U.S. at the weekend to discuss military aid.

The Egyptian Defence Minister will discuss particularly the production in Egypt of spare parts for U.S.-made F-16 war-aircraft and the possible delivery of another batch of the aircraft.

El Salvador set for day's truce

By David Gardner in San Salvador

EL SALVADOR was yesterday looking forward to a brief respite in its five-year-old civil war, as fighting was due to stop for the day to allow an internationally-backed vaccination campaign to go ahead.

The campaign, backed by the United Nations Children's Fund (Unicef), aims to immunise up to 600,000 children under five against polio, diphtheria, tetanus, whooping cough and measles.

No formal ceasefire had been agreed between the army and left-wing insurgents of the Farabundo Marti National Liberation Front (FMLN) but Unicef officials said they hoped both sides would observe what they described as "a tacit truce."

Mon Gregorio Rosa Chavez, auxiliary bishop of San Salvador and a key mediator in the so-far-abortive peace talks of the past four months, said yesterday the guerrillas "have decided to suspend all military action" for the one-day campaign. Second and third doses of vaccine are to be given on March 3 and April 21.

Submarine denial sparks row

BY DAVID BROWN IN STOCKHOLM

A POLITICAL storm broke out in Stockholm yesterday following reports that Mr Lennart Bodstroem, the Foreign Minister, told leading Swedish journalists last week that "there have been no foreign submarine intrusions since 1982."

The comments directly contradict conclusions drawn by a parliamentary investigating commission and the military supreme command.

The articles published in Sweden's major newspapers yesterday prompted waves of criticism from within Mr Bodstroem's political party, the Defence Establishment and the non-Socialist opposition and forced him to issue a "clarification" in an attempt to defuse the situation.

Calling the Foreign Minister "a catastrophe for Sweden's security policy," Mr Bengt Westerberg, the Liberal Party leader, said "He does not have the judgment required of a Foreign Minister."

Mr Carl Bildt, a Conservative Party defence expert, who sat on the submarine commission, said: "He has hurt himself, his Government and—what is far worse—his country."

Mr Sten Andersson, the former Social Democratic Defence and Foreign Minister, who chaired the submarine commission, said he "could not believe" the Foreign Minister could have made such a statement.

As recently as last week the military supreme command reported that "underwater activities"—probably by foreign submarine forces — continued late last year around the country's most sensitive naval installations.

Mr Bodstroem said in a statement late yesterday that it was nationality of the intruders, not their existence, which he had called into question. He said there was no evidence the intruders were Soviet.

Kyprianou 'will stay on'

By Our Nicosia Correspondent

PRESIDENT Spyros Kyprianou of Cyprus yesterday turned down suggestions from the opposition that he should resign or hold early elections, following the collapse of talks in New York last month with Mr Rauf Denktash, the Turkish-Cypriot leader, on a federal settlement of the Cyprus problem.

Mr Kyprianou, who remained isolated following attacks by the two largest parties, the right-wing Democratic Rally and his former allies, the Communist Akel party, insisted that he still enjoyed the support of the "great majority" of the Greek-Cypriot people.

Murder of industrialist signals end of hunger protest

BY PETER BRUCE IN BONN

MOST of the 37 imprisoned West German terrorists who have been on hunger strike since early December began taking food again at the weekend, just some hours after sympathisers in the Red Army Faction (RAF) claimed responsibility for killing Dr Ernst Zimmermann a senior German industrialist, near Munich on Friday.

The disintegration of the West German hunger strike, aimed at winning prisoner of war status for the RAF captives and in support of which the RAF has made about 40 bomb and arson attacks on Nato, Western diplomatic and commercial targets since mid-December, was immediately followed by signs that a sympathy hunger strike by convicted terrorists in France was ending.

Authorities in West Germany believe that with the slaying of Dr Zimmermann, president of the German space, air and arms industry association, and chief executive of the Motoren und Turbinen Union, which makes engines for Nato fighters and tanks, the new wave of terrorism in Western Europe has been taken a step further, rendering the hunger strikes politically redundant.

These fears were quickly strengthened early yesterday morning when a bomb shattered a bar in an Athens suburb, injuring 78 people, most of them U.S. military personnel from a nearby U.S. air base.

Terror groups, among them the RAF and Action Directe in France have made it clear in recent weeks they are fighting so-called U.S. military imperialism in Western Europe and intend attacking weapons related industries and industrialists.

AN explosion in a suburban Athens bar on Saturday night near a U.S. air force base, which injured more than 60 Americans, mostly servicemen and their wives was caused by a "powerful time bomb," Greek police said, AP reports from Athens.

Security police said experts sifting through the wreckage of the bar found "traces of a timing device."

Action Directe claimed responsibility for killing General Rene Audran, a senior French Defence Ministry official, in front of his home in Paris just over a week ago. Papers found by the German police when they raided an RAF stronghold in Frankfurt last year indicated a great deal of research had been made into arms co-operation between France and West Germany.

In December, a military annexe to the French Embassy in Bonn was blown up by the RAF.

While military targets in Belgium and Portugal have also been hit in the past few weeks, finding ways to combat the Franco-German twist to the terror attacks, and the announcement on January 15 by the RAF and Action Directe that they were combining their efforts, is likely to rival economic discussions when the French Prime Minister, M Laurent Fabius, visits Bonn for brief summit talks tomorrow.

The new wave of terror, which has alarmed security authorities not only because of the ease with which it appears to have been co-ordinated but also because of the sophistication of some unexploded bombs that have been found, will almost certainly prove a major security and political headache for the Government of Chancellor Helmut Kohl which is hosting the annual world economic summit near Bonn in May.

Chancellor Kohl had especially brought the summit date forward, to coincide roughly with the 50th anniversary of the Nazi surrender on May 8, in the hope that the presence of major Western leaders in the country at the time might help restore whatever German pride was lost when the former Allies failed to invite him to the Normandy landings celebrations last June.

Given the avowedly anti-Nato and anti-U.S. stance of the terror groups, security at the Bonn summit is likely to be unprecedented, and could threaten its usefulness as an exercise in political public relations for Chancellor Kohl.

President Ronald Reagan's plans to take part in the capitulation anniversary could also be affected by security considerations.

The problem for the German security authorities is that having virtually written off the RAF last year, suggesting the hard core numbered around 20 terrorists, they have been unable to find them. They further concede that the new spate of activity, coupled with the hunger strike, has probably boosted recruitment.

It is also clear, given the ease with which two RAF members entered Dr Zimmermann's unguarded house and shot him, that much-trumpeted security measures, taken in the past few weeks have been found wanting.

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International Aero Engines, McDonnell Douglas sign deal

BY LYNTON McLAIN

INTERNATIONAL Aero Engines has signed a memorandum of understanding with MacDonell Douglas of the U.S. for a new version of the MD-80 airliner to be powered by IAE's 25,000-lbs *thrust engine*. The aircraft will be launched when the first orders come in.

The proposed airliner, formerly known as the MD-89, will have 150 seats and will be in direct competiton with Airbus Industries' A-320 airliner.

International Aero Engines and MacDonell Douglas will jointly market the new airliner, IAE said yesterday.

Rolls Royce and Pratt & Whitney of the U.S. lead the IAE engine consortium each with 30 per cent shares in the company and the promise of 30 per cent of the work on engine orders. Japanese Aero Engines has a 23 per cent share; MTU of West Germany 11 per cent, and Fiat Aviazone of Italy 6 per cent.

The total world market for engines in the 25,000-lbs thrust category could reach 7,000. These would be worth £27bn over the next 20 years and IAE *expects to win half the orders.*

The main competition is from the Franco-U.S. CSM 56 engine from GE/Snecma.

The agreement is the second IAE has reached with airliner manufacturers for its C-2500 advance technology engine. The company already has an agreement with Airbus Industrie for the engines to be used on the A-320.

Pan American World Airlines has ordered 16 A-320s all to be powered by the IAE engine. This agreement is "near to a firm contract," IAE said yesterday. Pan Am bave options of a further 34 A-320s.

THE HONG KONG Government last week announced plans to redraft air service agreements on flights between Hong Kong and London, David Dodwell writes from Hong Kong. The changes will mean that British Airways will in future have to obtain a permit to fly into the territory.

The changes in air service licensing requirements mark the first step towards disentangling Hong Kong from British colonial control before 1997, when mainland China will regain sovereignty of the territory as a "special administrative region."

Until now, British Airways has had the privilege of being able to fly into Hong Kong as if it were a domestic British airport.

Japanese group quits Canadian LNG scheme

By Bernard Simon in Toronto

THE SPONSORS of an ambitious project to ship liquefied natural gas from western Canada to Japan will press ahead with tha scheme despite the withdrawal of one of five prospective Japanese customers.

The Canadian companies participating in the C$3.5bn (£2.64bn) venture, known as the Western LNG project, said they are interested in pursuing a scaled-down version with the four remaining buyers. However, the Calgary-based project manager Mr David Bramsen said that the withdrawal of Osaka Gas Company "has to be a setback, because we have to do a revaluation. It has to be an economically viable project before anyone signs."

Osaka Gas said last week that protracted delays in finalising prices and other arrangements forced it to cancel its participation. The company was due to take 550,000 tonnes of LNG a year out of the total contract volume of 2.9m tonnes. An Osaka official said it would turn to Indonesia and other sources to supply LNG for a natural gas conversion plant under construction at Himeji in western Japan.

The western LNG project has been on the drawing boards since 1980 when it was initiated by the ailing Calgary energy producer Dome Petroleum. Tha plan involves construction of e gas liquefection plant and marine terminal north of Vancouver, as well as investments in pipelines and sea-going LNG carriers.

The project appeared doomed a year ago by delays in obtaining export permits, disagreement on prices and financing problems. It was revived when Dome withdrew from active participation last September, and the *Alberta* Government approved a long-awaited export permit six weeks ego.

Doma's former partners — Union Oil of Canada and the local subsidiary of Nissho Iwai — have taken the lead in pressing ahead with negotiations with the group of Japanese utilities.

Anglo-Japanese 'wise men' seek to heal rifts

BY CHRISTIAN TYLER, TRADE EDITOR

AS EMPLOYMENT Secretary, Mr James Prior sought to tame the trade unions by stealth, be was dubbed "Pussyfoot" by the right-wing press. As Northern Ireland Secretary, the conciliatory Mr Prior endured a kind of political exile in Ulster's civil war.

Now a backbencher and chairman of GEC, the former Conservative Cabinet Minister has found himself a new role as leader of an economic and cultural peace offensive into Japan.

He is chairman of a committee of "wise men" called the 2000 Group that landed in Tokyo this week-end for three days of discussion about issues that divide — or that should unite — the world's two largest island economies.

Loosely modelled on the Anglo-German Koenigswinter conferences instituted after World War II, the group claims to be the first permanent bilateral forum for reconciling British and Japanese interests.

The group bas its Japanese *counterpart*, likewise composed of politicians, businessmen and academics. The forum bas the personal blessing of the two Prime Ministers, Mrs Margaret Thatcber and Mr Yasuhiro Nakasone who will receive reports of this first encounter.

Relations between Britain and Japan have never really recovered from World War II, according to the group's organiser, Mr Richard Needham, MP, a long-time confidant of Mr Prior.

He said tbe Japanese, none the less, regard Britain as their closest Western equivalent—despite the obvious culture gap—and as their "window onto tha EEC." Mr Needham said: "They want to end their isolation, but they need outside pressure and help."

Japan's persistent trade surpluses with the Western countries are clearly the chief cause of economic friction. Not only that, but many British businessmen share the suspicion that Jepan likes only to sell, but not to buy. Japanese investment in Europe—most of it in Britain for language and othar cultural reasons—may be welcomed by govarnments, but is still seen by domestic competitors as a Trojan horse. The mistrust persists, despite a pervasive—if defensiva—propagande campaign by Japanes eembassies.

Mr Prior: leader of a peace offensive

This week's forum will have a wide agenda. Today tha proceedings open with a review of mutual perceptions, moving on to macroeconomic matters and Japan's instigation of a new round of trade negotiations in the General Agreement on Tariffs and Trade.

The two teams will look at the possibilities for industrial collaboration and for joint ventures in third markets. Japan's relationship with Nato, its defence procurement and policy towards the Soviet Union and China are also down for discussion.

The expenses of the British team are being met from private sources, with some belp from the Foreign Office. Mr Needham said it was hoped to set up a private foundation to guarantee the group's future.

The members of this week's delegation under Mr Prior are: Sir Terence Beckett, director general of the Confederation of British Industry; Mr Brian Beedham, foreign editor of The Economist magazine; Mr Alan Budd, professor of economics at the London Business School; Admiral Sir James Eberle, director of the Royal Institute of International Affairs; Sir Peter Parker, president of the British Institute of Management; Sir Julian Ridsdale, Conservative MP for Harwich; Lord Sandon, chairman of International Westminster Bank; Mr John Smith, Labour trade and industry spokesman; Dr William Wallace, director of the Institute of Strategic Studies; Sir Michael Wilford, director of Lloyds Bank International and Mr Nicholas Wolfers, a director of Samuel Montagu.

Jurek Martin adds from Tokyo: The Japanese side under Mr Tadao Kato, a former ambassador in London, includes some industrial heavyweights, among them Mr Shoichiro Toyoda, president of Toyota, Mr Keizo Saji, chairman of Suntory, the *giant distiller, which is said to* be Japan's largest privately owned company, and Mr Tadahiro Sekimoto, president of Nippon Electrics.

It also contains e handful of men known to he close to the Prima Minister, Mr Nakasone, among them Prof Masataka Kosaka, from the University of Kyoto, and Mr Motoo Shiina, a member of parliament.

Strong dollar hits newsprint

By Tony Jackson

NORTH AMERICAN exports of newsprint were badly bit last year by the strength of the dollar. Canadian shipments to Western Europe were down 21 per cent on 1983 levels, and thare was a 16 per cent fall in exports to South America.

While there was growth in exports to Asia, Oceania and Africa, Canadian shipments outside North America were down 5 per cent overall by volume, says the Canadian Pulp and Paper Association. The U.S. picture was similar, with an overall drop of 3 per cent, and there was a remarkable threefold rise in U.S. imports from countries other than Canada, equal to almost 2 per cent of national consumption.

With the strength of the U.S. economy, bowever, consumption showed a healthy rise. The estimated tonnage used by U.S. daily newspapers was up 5 per cent, at 8.3m tonnes.

China plans to spend $1bn on technology imports

BY JONATHAN CARR IN DAVOS

CHINA EXPECTS to spend more than $1bn this year on imports of technology from more than 1,000 different product groups to belp modernise its economy.

New opportunities will also emerge for foreign businessmen in China's next five-year plan (1986 to 1990) expected to be announced this autumn.

This was made clear this weekend by Weizhong Fang, vice-chairman of China's Stata senior executives and politicians attending an international symposium bere orgaised by the EMS Foundation, e non-profit making organisation based in Geneva.

Giving details of the growing pace of China's economic involvement with foreign partners, Weizhong noted that his country had so far attracted $4.8bn worth of capital from abroad— including loans and sums ploughed into joint ventures. Of that total, $2.7bn had been put to use last year.

In 1984 China had further reached agreement on about 700 different projects with foreign partners—as many as it bad concluded in the five previons yeara put together.

● Volkswagen of West Germany plans to build 100,000 cars annually at a Shanghai plant by 1990 under its joint venture with China, five times the number originally forecast, the Chinese Government said Friday, AP reports from Peking.

Egyptian export bank opens for business

BY TONY WALKER IN CAIRO

EGYPT'S new export development bank, EDBE, opened for business yesterday with an authorised capital of E£100m (£92m) and promises that it would help develop fresh markets for Egyptian products.

Dr Hazem el Beblawi, chairman of EDBE, said the new bank will concentrate at first on trade financing. It is also considering requests for project finance. After a year it plans to introduce a credit-backing scheme like those offered by Britain's Export *Credit Guarantee Department*

Tha new bank has been established in part at the behest of tbe World Bank which has pointed out that Egypt relies too heavily on "unsustainabla sources" of foreign exchange such as workers' remittances

The World Bank is offering e U.S.$125m (£99m) credit to assist Egyptian exports, but the money has yet to be allocated because of disagreements over exchange rates. Egypt is arguing that the funds should be allocated at low official rates of exchange. The World Bank believes they should reflect a more realistic market value.

Dr Beblawi supports the World Bank point of view saying: "*I think it is essential for* borrowed money to be used efficiently and a proper costing is a good guarantee of the proper use of money.

Hawke to tell EEC about Australia's CAP worries

BY QUENTIN PEEL IN BRUSSELS

MR BOB HAWKE, the Australian Prime Minister, will today hold talks with M Jacques Delors, the new president of the European Commission, which will inevitably focus on Australia'a concern about the effects of the EEC's Common Agricultural Policy on its own agricultural exports.

Mr Hawke is expected to raise the problems of how the Community is disposing of its dairy surplus on the world market. Australia is also worried about the disposal of EEC beef and sugar and the access of its own beef to the European market.

Apart from meeting M Delors, *the Australian Prime Minister* will have round-table talks with the commissioners responsibla for agriculture, industry, external relations and energy.

Mr Frans Andriessen, the Farm Commissioner, is likely to spell out bow he sees the effects of the Commission's latest farm price proposals on international trade, arguing that by generally freezing the present level of support they should belp ease tensions.

The Community enjoys a surplus of some Ecu 1.5bn (£900m) in its overall trade with Australia, importing goods worth some Ecu 3.1bn and exporting more than Ecu 4.6bn. Britain accounts for abont one-*third of the total EEC-Australia* trade.

SHIPPING REPORT

Revival in dry cargo rates 'rather late in coming'

BY CARLA RAPOPORT

INCREASED activity by the Soviet Union in the Atlantic and the Japanese in the Pacific provided some optimism to the dry cargo shipping markets last week.

Although rates remained largely unchanged, one of two improvements were recorded and brokers were looking forward to some increase in rates in the weeks ahead.

"This represents the revival we usually see after the New Year," said Eggar Forrester, th London-based ship brokers, "only this year, it has been rather late in coming."

Eggar Forrester reported that at least one vessel was fixed from the North Pacific to Japan at $8.50 per tonne, well up on last week's rate of below $8. Patchy trading was mirrored by the *Baltic Freight Index (BFI)* which closed the week slightly lower et 971.5, down from 975 last week.

Tanker markets closed the week on an upbeat note with a far greater volume of fixtures reported. This was in response to the Opec accord as well as the increased chartering activity of the Iranians. Rates, however, have yet to improve

Sale and purchase markats merkets had a busier week with a number of Very Large Crude Carriers and Ultra Large Crude Carriers changing hands. The best price reported was $8.3m for the ULCC Sea Song, a 1977 vessel bought by the Iranians. There were reports that a similar deal had been struck on the sister vessel Sea Saga. Sales of dry cargo vessels were more disappointing with e 1976 Panamex selling for *$6.25m*, a *significant* decrease over recent months.

BASE LENDING RATES

A.B.N. Bank	14 %	■ Hill Samuel	§14 %
Allied Irish Bank	14 %	C. Hoare & Co.	†14 %
Henry Ansbacher	14 %	Hong Kong & Shanghai	14 %
Amro Bank	14 %	Johnson Matthey Bkrs.	14 %
Armco Trust Ltd.	14½%	Knowsley & Co. Ltd.	14½%
Associates Cap. Corp.	14 %	Lloyds Bank	14 %
Banco de Bilbao	14 %	Edward Manson & Co.	15 %
Bank Hapoalim	14 %	Meghraj & Sons Ltd.	14 %
BCCI	14 %	Midland Bank	14 %
Bank of Ireland	14 %	■ Morgan Grenfell	14 %
Bank of Cyprus	14 %	Mount Credit Corp. Ltd	14 %
Bank of India	14 %	National Bk. of Kuwait	14 %
Bank of Scotland	14 %	National Girobank	14 %
Banque Belge Ltd.	14 %	National Westminster	14 %
Barclays Bank	14 %	Norwich Gen. Tst.	14 %
Beneficial Trust Ltd.	15 %	People's Tst & Sv. Ltd	15 %
Brit. Bank of Mid. East	14 %	Provincial Trust Ltd.	15 %
■ Brown Shipley	14 %	R. Raphael & Sons	14 %
CL Bank Nederland	14 %	P. S. Refson	14 %
Canada Perm'nt Trust	14 %	Roxburghe Guarantee	14½%
Cayzer Ltd.	14 %	Royal Bank of Scotland	14 %
Cedar Holdings	13 %	Royal Trust Co. Canada	14 %
■ Charterhouse Japhet	14 %	■ J. Henry Schroder Wagg	14 %
Choulartons**		Standard Chartered	‖14 %
Citibank NA	14 %	Trade Dev. Bank	14
Citibank Savings	12½%	TCB	14 %
Clydesdale Bank	14 %	Trustee Savings Bank	14 %
C. E. Coates & Co. Ltd.	14½%	United Bank of Kuwait	14 %
Comm. Bk. N. East	14 %	United Mizrahi Bank	14 %
Consolidated Credits	14 %	Westpac Banking Corp	14 %
Co-operative Bank	*14 %	Whiteaway Laidlaw	14½%
The Cyprus Popular Bk.	14 %	Williams & Glyn's	14 %
Dunbar & Co. Ltd.	14 %	Wintrust Secs. Ltd.	14 %
Duncan Lawrie	14 %	Yorkshire Bank	14 %
E. T. Trust	14½%		
Exeter Trust Ltd.	14½%		
First Nat. Fin. Corp.	15 %		
First Nat. Secs. Ltd.	14½%		
■ Robert Fleming & Co.	14 %		
Robert Fraser & Ptns.	14½%		
Grindlays Bank	‡14 %		
■ Guinness Mahon	14 %		
■ Hambros Bank	14 %		
Heritable & Gen. Trust	14 %		

■ Members of the Accepting Houses Committee.
* 7-day deposits 11%. 1 month 11.75%. Fixed rate 12 months £2,500 11.75% £10,000 12 months 12.00%
† 7-day deposits on sums of under £10,000 11%, £10,000 up to £50,000 12%, £50,000 and over 12½%.
‡ Call deposits £1,000 and over 11%.
‖ 21-day deposits over £1,000 12½%.
¶ Mortgage base rate.
§ Demand deposits 11%.
** See Provincial Trust Ltd.

WORLD ECONOMIC INDICATORS

RETAIL PRICES

(1975 = 100)

	Nov. '84	Oct. '84	Sept. '84	Nov. '83	Increase over previous year %
W. Germany	145.4	145.0	144.1	142.2	2.2
France	251.2	250.4	248.9	235.2	6.8
Italy	392.7	390.4	386.7	360.4	9.0
Netherlands	163.9	163.6	162.3	158.2	3.0
Belgium	185.1	185.1	184.2	175.8	5.3
UK	266.1	265.3	263.7	253.6	4.9
U.S.	195.5	195.9	195.1	188.0	4.0
Japan	155.0	155.8	154.6	151.7	2.2

Source: Eurostat

UK NEWS

Offshore supply orders 'at risk'

The Government has warned British suppliers that without big improvements in efficiency they may lose valuable orders in the next phase of the UK's offshore expansion. Maurice Samuelson reports

HIGH PRICES, weak managemeot and inferior design may deprive the UK of billions of pounds worth of orders from the offshore oil industry by the and of the century, according to a report by a committee of the National Economic Development Office (Nedo).

It says that in the next phase of developing the UK'e offshore resources, 60 to 60 oil and gas fields will be opened up in the next 15 years. Many of them, however, would require new forms of sophisticated equipment in which UK suppliers have not traditionally been strong and they would fail to secure this business without big improvemeots in expertise and efficiency.

The committee, which began its study two years ago, also recommends formation of an industry-led strategy for identifying weakness in research and establishing priorities.

Mr Alick Buchanan-Smith, oil and gas minister, is understood to have eccepted this recommendation and will shortly announce the format of o special advisory committee of which he will be chairman.

The Nedo report prefaces its criticisms by acknowledging that about 90 per cent of orders for the UK continental shelf have been placed in the UK, together with 86 per cent of orders for the associated plant and equipment,

It says, however, the supply industry must now respond to the new types of field coming under development and recognise the increasing importance of cost reduction and control, good marketing and management.

Winning this market is all the more important because the North Sea will set the pattern for development of oil provinces elsewhere in tha world, presenting export opportunities.

The report, which reflects the attitudes of customers for UK-made equipment and structures, is the work for a 17-man team, drawn from both the oil and gas industries and their suppliers and including Mr George Band, director-general of the UK Offshore Operators Association.

While noting the improvements in UK yards in recent years, the team reports concern that their prices are consistently higher than those of overseas fabricators and says they have won North Sea business mainly because of the logistical advantage of being in the UK, an advantage which does not exist when bidding for overseas work.

Referring to the "major weakness" of management in many UK yards, the committee says this weakness will become "increasingly critical" as multi-order, multi-client fabricating becomes more common. The most competitive yards, it adds, are those with the most flexible working practices.

On pricing, the report complains about the differences which develop during a contract between the bid price and the actual out-turn cost to the customer.

The committee recommends a detailed examination of the reason for price differentials, concentrating on comparative labour costs and management overheads between UK and overseas.

In the equipment sector UK suppliers are found to be on a par with overseas competitors in terms of delivery, price, quality and capability. The report, however, voices doubts about possible higher levels of price, lack of co-ordination between marketing and production staff and a lack of flexibility on delivery terms.

In research and development, the committee says it is difficult to assess how much was being spent in the UK. Recent estimates suggested an annual expenditure on offshore product development of £80m, with half coming from oil companies and the rest split between suppliers and academic or research institutions.

It compares this with the £70m spent in Norway on a much smaller industry and the situation in France where £50m was channelled through a single national research institute.

It calls for the creation of a "strong co-ordinating body representing the industry and Government" to review the strategy for R&D

Offshore supplies, Performance and Prospects; Joint Offshore Committee of the Engineering, Construction and Process Plant EDCs, Nedo, Millbank Tower, Millbank, London SW1.

ICI and Enichem fail in attempt to lift PVC price

BY TONY JACKSON

ICI and Enichem, the Italian chemicals group, have failed in their attempt to raise prices for polyvinyl chloride (PVC). The attempt was thwarted by the price war in European plastics.

The price of PVC in Europe has fallen by almost 20 per cent from its April peak last year, to around DM 1.50 a kilo.

Enichem and ICI tried in January to push the price back up by 10–15 per cent, but appear to have succeeded only in halting the decline.

ICI, whose PVC capacity of 570,000 tonnes is around 11 per cent of the world total, said the attempt had been postponed because of competitive conditions.

There are slight signs of an upturn in the UK, and the group still hopes to raise prices by 6–7 per cent in Britain and the Continent by the end of February.

Prices of commodity plastics have been falling in recent months. The failure to reverse the trend in PVC prices is, however, significant on several counts.

ICI and Enichem have more than 20 per cent of the world PVC market and are price leaders to an extent that is not found in more fragmented markets, such as polyethylene.

PVC is not subject to the threat of low-cost Saudi Arabian competition nor can it immediately be used as a substitute for products that are under threat.

Industry analysts are divided as to why commodity plastics prices should have plunged so dramatically, particularly since demand has remained strong.

Industry sales of PVC, for example, seem to have peaked at around 320,000 tonnes in October – six months after the price began to slide.

Some analysts believe that good sales volume masks an underlying weakness in the stock chain, and in export markets.

The self-contained nature of the PVC market, though, argues more for a form of internecine war among European producers.

Acorn to update computer

By Jason Crisp

ACORN Computers is to launch a more powerful and more expensive version of the BBC Micro later this year. It may also drop the standard version of the cheaper Electron computer which has had disappointing sales.

Mr Chris Curry, founder and managing director, has confirmed for the first time that Acorn will produce a new version of the four-year-old BBC computer, which is widely used in education and homes.

The new computer is not likely to appear until September. Mr Curry emphasised that Acorn was not phasing out the existing version of the BBC computer and was not planning to cut its price of £400.

The BBC Micro is still the main source of Acorn's revenues, although the computer is increasingly seen as expensive and underpowered compared with other products. Last year Acorn signed a four-year contract with the BBC which required it to produce a new computer.

The company has been suffering from a sharp fall of confidence in the City of London after its withdrawal from the U.S. market and poor sales of the Electron. Ten days ago Acorn cut £70 off the price of the Electron to £129.

Acorn's main competitors claim that the Electron is being sold at a loss, and there is growing evidence the company may stop selling it as a basic home computer.

Cuts sought in drug industry's profitability

By Carla Rapoport

BRITAIN'S largest drug companies will be hardest hit by the Government's plans to reduce the industry's profitability, according to industry executives.

The reduced targets for profitability were sent to drug companies by the Department of Health and Social Services (DHSS) last week. The targets, according to Mr Peter Cunliffe, managing director of ICI Pharmaceuticals, "are about as bad as one's worst fears."

It is understood that the DHSS is seeking to reduce the companies' return on capital employed to between 15 and 17 per cent, in line with other government contracts. The Government proposes to achieve the reduction in profits through a 3 to 4 per cent price cut on drug sales to the National Health Service and restrictions on promotional expenditure.

As the large UK-based drug companies are at present the most profitable within the industry, they face the largest profit reductions. These companies include Glaxo, Fisons, Beecham, Boots and ICI Pharmaceuticals. Due to the strong sales of its heart drugs, ICI Pharmaceuticals is now among the top 10 most profitable drug companies in the world.

Mr Ron Halstead, chairman of Beecham, said the industry would not give up lightly

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

Current
International Spring Fair: Gift Show (01-855 9201); Hardware and Housewivos Show (0604 22023) (until February 7)
NEC, Birmingham

February 8-10
Cruft's Dog Show (01-493 7838)
Earls Court

February 10-13
Internatiooal Men's and Boy's Wear Exhibition (021-705 6707)
Olympia

February 12-14
Brighton International Catering Exhibition — CATERBRIGHT (01-222 9341)
Met Exhibition Hall

February 17-19
International Trade Show for Home Computers, Software and Leisure Electronics—LET (0923 777000)
Olympia

February 19-21
Refrigeration and Air Conditioning (01-688 7788)
Wembley Conference Centre

February 25-March 1
International Food and Drink Exhibition (01-486 1951)
Olympia

March 5-8
Intarnational Powder and Bulk Solids Exhibition—(POWTECH) (01-572 2121)
NEC, Birmingham

March 5-31
Daily Mail Ideal Home Exhibition (01-222 9341)
Earls Court

March 6-8
Digital Equipment Hardware and Software Exhibition — DEXPO EUROPE (01-892 9266)
Olympia

OVERSEAS TRADE FAIRS

Fobruary 4-7
Middlo East Electronic Communications Show and Conference—MECOM (01-486 1951)
Bahrain

February 7-17
International Motor Show (Passenger cars)—PERSONENAUTO (020 44 09 44)
Amsterdam

February 8-17
International Boat Show (01-486 1951)
Helsinki

February 9-13
International Exhibition of Women's Ready-Made Clothing—Pret-a-Porter (01-439 3964)
Paris

February 20-24
International Holiday Fair and Exhibition — FERIENMESSE INTERNATIONAL (01-981 2606)
Vienna

February 23-27
International Spring Fair (01-734 0543)
Frankfurt

March 5-9
Toy, Gift & Stationery Spring Show (01-839 5901)
Taipei

March 7-17
International Motor Show
Geneva

March 12-14
Semicon Europa Electronics Show (01-353 8807)
Zurich

March 19-23
Interoational Printing and Packaging Machinery and Materials Exhibition — PRINTING AND PACKAGING INDONESIA (01-486 1951)
Jakarta

March 22-27
International Travel Exhibition (021 705 6707)
Budapest

BUSINESS CONFERENCES

February 4-8
Risk Research Group: Reinsurance practice (01-236 2175)
Kensington Palace Hotel, W8

February 13
The Henley Centre for Forecasting: Foreign exchange rates—FX Analyses, forecasts and world business prospects (01-353 9961)
Cumberland Hotel, W1

February 12
Brazilian Chamber of Commorce: New oportunities for industry, trade and natural resources (01-499 0186)
Hilton Hotel, W1

February 14-15
Risk Research Group: The future of Lloyd's (01-236 2175)
Great Eastern Hotel, EC2

February 18-19
Open Computer Security: The International Data Security Conference 1985 (0273 672191)
Dorchester Hotel, W1

February 20-21
FT Conference: The Third Automated Manufacturing Conference (01-621 1355)
Intercontinental Hotel, W1

February 21
WP Text Communications 1985 (01-242 4141)
London

February 26
Longman Seminars: Will drafting (01-242 2548)
Barbican Centre

February 20-21
FT Conference—The Third Automated Manufacturing Conference—challenges for management (01-621 1355)
Inter-Continental Hotel, W1

February 20
The Henley Centre for Forecasting: Consumor markets—changing the rules of the game (01-353 9961)
Cumberland Hotel, W1

February 22
Oyez IBC: Third and fourth generation PABX's — preparing for tho next five years (01-236 4080)
Hilton Hotel, W1

February 23-24
Institute of Retailing: How to start your own retailing business (Exmouth 266269)
Exeter Arms Hotel, Exeter

February 26
London Chamber of Commerce and Industry: Belgium—its sales potential for the EEC and its investment incentives (01-248 4444)
Cannon Street, EC4

February 28
James Morrell Associates: Business forecasts—tax reform and unemployment (01-236 6950)
Bowater Conference Centre

March 1
Longman Seminars: The protection racket—business tenancies (01-242 2548)
Cavendish Conference Centre, W1

March 8
Longman Seminars: Oil and gas law—the joint operating agreement (01-242 2548)
Cavendish Conference Centre, W1

March 11-12
Euromoney International Financial Law Conference (01-236 3288)
Inter-Continental Hotel, W1

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

Westland Helicopters asks for state help

BY LYNTON McLAIN

WESTLAND, Britain's only helicopter maker, has urged the Ministry of Defence (MoD) to consider a financial rescue to ease the company's forecast cash flow problems in the late 1980s.

By then, the first of the Anglo-Italian EH101 helicopters are to go to the Royal Navy to replace Westland's Sea King and Sea Lynx on anti-submarine work.

"The company has been having discussions with the Secretary of State (for Defence) about its current order book, and we are aware of the problems they face," the ministry said yesterday.

The MoD is at the feasibility study stage of plans for a possible new battlefield helicopter. This project, with the codenumber AST 404, is unlikely to be given a formal go-ahead in time to ease Westland's cash flow problems in the three years to 1990, when the company most needs support.

Westland has a healthy order book and was given £40m from the Department of Trade and Industry three years ago to develop the Westland WG30 helicopter. This helicopter could be modified to meet AST404, but this cannot happen until the final requirement for AST404 is agreed.

The MoD is also considering a light attack helicopter for the British army, but again this is unlikely to be producing cash for Westland, if it gets the order, until the 1990s. Nevertheless, the MoD confirmed that it had been looking at ways of helping Westland.

"The future helicopter requirements for the Ministry of Defence are still being considered," the MoD said yesterday. "No decisions have yet been reached by the minister. We are not able therefore at this stage to discuss possible effects on Westland or on the long-term costing assumption for the MoD."

Companies said to lag behind overseas rivals on training

BY ALAN PIKE, INDUSTRIAL CORRESPONDENT

DISTURBING evidence that UK companies spend only a fraction as much on training as their overseas competitors is given in a survey published by the Industrial Society today.

The survey shows that 65 per cent of organisations spend less than 0.5 per cent of annual turnover on training. Research indicates that leading companies in competitor countries like the U.S. and Japan spend 3 per cent or more of sales revenue on training.

The Manpower Services Commission (MSC) is trying to persuade UK companies that they must match this spending level. The survey illustrates the scale of the task before the MSC.

Only two companies out of 134 included in the survey – an accountancy firm and a research organisation – were found to be spending more than 3 per cent of turnover on training. Three others spent between 2 and 3 per cent – two accountancy firms and a new technology company in the distribution and shipping sector.

There is a lack of information about levels of spending on industrial training in the UK, and the Industrial Society regards its analysis as the first of its kind. The findings will strengthen the Government in its view that the UK does not suffer from a shortage of state spending on vocational education and training, but from underinvestment by industry.

Another striking feature of the survey is that spending on training apparently does not increase with the size of the company. The list of organisations spending less than 0.5 per cent of turnover included 26 out of 32 companies with turnovers of £101m-£500m, and 17 out of 20 with turnovers of £51m-£100m.

Survey of Training Costs. £7.50, The Industrial Society, London.

Coal board's enigma over talks

JOHN LLOYD discusses the conflicting messages about conditions for talks to settle the miners' strike.

THE NATIONAL Coal Board (NCB) has been, since the beginning of this year, dogmatic that it must have an agreement with the National Union of Mineworkers (NUM) that uneconomic pits must close.

There has been confusion, however, over whether it insists on this agreement in advance of negotiations, or simply that such an agreement should be discussed during the talks.

The issue is important on two levels. First, if talks do start again, this enigma will have to be cleared up. Second, the changes of line by government ministers and the board have been so marked as to prompt the question: is it deliberate?

Mr Ian MacGregor, the NCB chairman, has been one cause of confusion. Last November, he wrote to Mr Stan Orme, Labour's energy spokesman, to say that talks could not re-start without a written assurance from the NUM that its leaders would discuss uneconomic pits.

On January 20, however, he said no written assurances would be needed: a verbal indication would suffice.

Ministers picked that up, and both Mr Peter Walker, the Energy Secretary and Mr David Hunt, the Coal Minister, repeated Mr MacGregor's point

In that same week, Mr Ned Smith, the NCB's director of industrial relations, and Mr Peter Heathfield, the NUM general secretary, held informal talks and reached some agreement on an agenda for talks. But then the NCB line hardened.

When the NUM executive met 10 days ago, the board said: "The proposals (put up by the NUM to restart talks) must establish that the NUM recognise that management must deal with the problems of uneconomic capacity."

It seemed to mean a prior commitment to uneconomic closures. But last Wednesday, Mr Merrik Spanton, a board member, sent e letter to the NUM leadership which asked the union to show it was willing to "address the question of dealing with uneconomic capacity"

Yet on Friday, the NCB said: "The board remain ready to resume negotiations when the union make it clear they are prepared to have meaningful talks to accept the procedure to deal with the problem of uneconomic coal mining capacity."

A likely explanation for the confusion is that the board deliberately wishes to put out two messages, Firstly, to the Government (especially the Prime Minister) and to the public, it wishes to maintain a hardline stance. Secondly, to the NUM, which it wishes to encourage into peace talks.

The fact is that the NCB will negotiate if the union merely indicates it will talk about uneconomic pits. Yet so delicate is the political situation that it cannot say so, for fear of looking too accommodating.

Union to ballot on political fund levy

APEX, the clerical union, is to ballot its 100,000 members on whether or not they wish to retain the union's political fund.

The ballot will be held in the six weeks from May 20 to July 1.

The fund is raised by a levy on members and is paid in support of the Labour Party.

Apex is the first union to announce its intention to ballot – although it is understood that two large unions, the General Municipal and Boilermakers Union and the electricians' union Eetpu, will also ballot at about that time and that the Post Office Engineering Union will ballot a little before.

Apex has been strongly opposed to the Trade Union Act 1984 which requires ballots of union members in the election of union officers, before taking strike action and on political funds. It will nevertheless present to its April conference rule changes which will bring its executive electoral system into line with the legislation.

□ **INVESTMENT** of £1bn on Britain's infrastructure and cuts in national insurance contributions, both for both employers and employees, should take priority over cuts in personal taxation, according to the Association of British Chambers of Commerce in its pre-budget submission to the Chancellor of the Exchequer.

□ *THE GOVERNMENT is hoping* to keep pay rises for judges, senior civil servants, doctors, dentists and the armed forces down to 3 per cent this year.

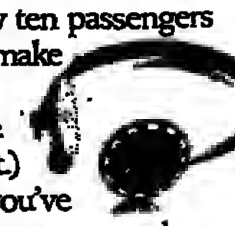
With inflation at 4.6 per cent and predicted to edge up over the next year, this would be in line with the 1 per cent cut in real wages which Mr Nigel Lawson, Chancellor of the Exchequer, has advocated as e means of creating more jobs.

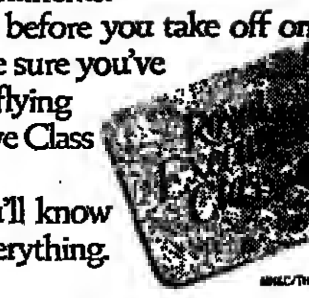
□ **FOOD RETAILERS** are increasingly siting new superstores out of town in preference to town centres, according to a survey by the Institute of Grocery Distribution. It found that almost 60 per cent of superstores were built out of town in 1983.

□ **BUILDING** societies had a net inflow of funds of between £850m and £900m in January, according to preliminary figures. This would represent a drop of about £100m on December, which was the second best month yet for funds.

□ **THE CONFEDERATION** of British Industry has set up an information technology skills agency, headed by Sir Robert Clayton, a former technical director of GEC. The aim is to combat skill shortages in information technology.

□ **THE INSTITUTE** of Directors will today press the Government to introduce legislation which would ban strikes in essential services and make procedure agreements in all industries legally enforceable.





Help break CAP down, Government is urged

BY ANDREW GOWERS

THE GOVERNMENT should take immediate steps to reduce its spending on farms and do everything it can to assist the eventual breakdown of the EEC's Common Agricultural Policy (CAP), according to a paper published today by a leading free market think tank.

The paper, written for the Institute of Economic Affairs by Mr Richard Howarth, a lecturer in agricultural economics at the University College of North Wales, argues that the CAP is incapable of reform and that Britain should aim to replace it with something approaching the free market in farm produce.

Agriculture, he points out, is a significant drain on the public purse, consuming almost double the overseas aid budget, 57 per cent more than is spent on law and order, and one third of total expenditure on industry, trade, energy and employment.

In addition, the paper says, the EEC's protectionism in agriculture damages developing countries and leads to strain in the Community's trade relations with the U.S.

The paper maintains, however, that farmers have not benefited much from this report: "A high proportion of the growth benefits they have received in price and input support has been dissipated in high land values, rents and interest payments which have in turn provided a barrier to new entrants to the industry," it says.

"Farmers have been worshipping at the altar of a false god who has showered his bounty on them in an extremely haphazard manner."

The study stopped short of demanding unilateral British withdrawal from the CAP, which, it says, would cause the breakup of the Community. But it suggests that the policy might self-destruct if deprived of increased funds towards the end of the decade, particularly in view of the planned entry of Spain and Portugal into the EEC next year.

"Britain missed an opportunity to bring the matter of the CAP to a head at (the EEC summit last year at) Fontainebleau ... However, the Community remains in a state of flux. The opportunity to end the CAP or to escape from it may come to hand at any time. It is up to the British Government to use that opportunity while ensuring that the Community survives."

Once disentangled from the CAP, Britain could then aim to phase out price support, while paying farmers compensation, over about seven years.

Mr Howarth argues that the political climate favours cutting farm spending, with an absolute maximum of 10 Tory seats in the Commons in danger from the farming vote and a Prime Minister committed to attacking subsidies in other sectors.

He suggests, however, that there would be strong opposition to such a move from within the Cabinet, 10 of whose members have close connections with agriculture.

In the short term, the Government could also cut farm spending over which it has direct control.

Farming for Farmers? by Richard Howarth. Hobart Paperbacks. Published by the Institute of Economic Affairs, 2 Lord North Street, London SW1. £4.00

WHITE GOODS INDUSTRY 'FAILED TO EXPLOIT POUND'S DECLINE'

Domestic appliance exports fall

BY CARLA RAPOPORT

BRITAIN'S £2bn-a-year white goods industry has failed to capitalise on sterling's market decline, unlike the majority of British industry.

According to the Association of Manufacturers of Domestic Electrical Appliances (Amdea), exports of white goods from Britain declined in 1984.

"There is no disguising the fact that 1984 was a bad year for exports from the industry," Amdea said in its 1984 annual report.

The association gave two reasons for the failure to boost exports. First, some traditional UK markets, particularly Middle Eastern countries, have been lost to competitors from the Far East. Second, the reduction in the exchange rate against the dollar, which caused a number of U.S. companies to abandon the UK market, has not led to any real attempt by UK manufacturers to increase sales to the U.S.

Amdea was unable to provide figures on the decline last year but said that export performance was down on 1983, not only in unit terms but in value. Between 1978 and 1982, the industry's exports dropped from 22 per cent to 14 per cent of total sales.

Growth in sales of white goods overall last year slowed to about 4 per cent, compared with a 20 per cent increase in 1983. Amdea termed last year's increase as "satisfactory" and predicted a similar growth for 1985.

The industry has also managed to hold imports fairly stable in most categories of white goods. In the fridge-freezer market, British companies have improved their share from 57 per cent of the market in 1981 to 71 per cent last year.

Imports of small appliances from Spain, however, increased sharply, causing the industry to step up its representations to UK and EEC officials on trade conditions between Spain and EEC countries. According to Amdea, Spanish electrical appliance imports increased by 54 per cent in the first half of 1984, compared with the same period in 1983. In 1983, the country increased its exports by 38 per cent over 1982.

The total value of imports, according to Amdea, rose substantially last year as a result of the "phenomenal growth" in the sales of microwave ovens, which has been dominated by Japanese manufacturers. This import penetration, however, is expected to fall following the decisions by some Japanese manufacturers to produce microwave ovens in the UK.

Amdea also noted that these new microwave production facilities will boost the industry's exports, particularly to Europe. Over the next two years, Amdea expects that around half of the sales of microwave ovens in the British market will be home-produced, although largely by Japanese companies or joint ventures.

Production of tyres 'still too high'

By Kenneth Gooding, Motor Industry Correspondent

DESPITE RECENT cutbacks, UK tyre manufacturers still have a long way to go to bring production capacity into line with expected demand, Mr Chris Dickson, marketing manager of Uniroyal, said at the weekend.

He gave a warning that the low value of the pound would boost unofficial exports of tyres by UK dealers in 1985 and give manufacturers in Britain temporary relief. But this would only mask the underlying problem for the industry: that surplus capacity was causing intense price competition.

Although capacity had been cut by about 2m a year since the end of the 1970s, Mr Dickson said, British manufacturers could still produce 3m more car tyres and about 1m more trucks tyres than they could sell.

British factories have sales of about 22m car tyres a year against capacity of at least 25m, while truck tyre sales of just over 2m compare with capacity of about 4m.

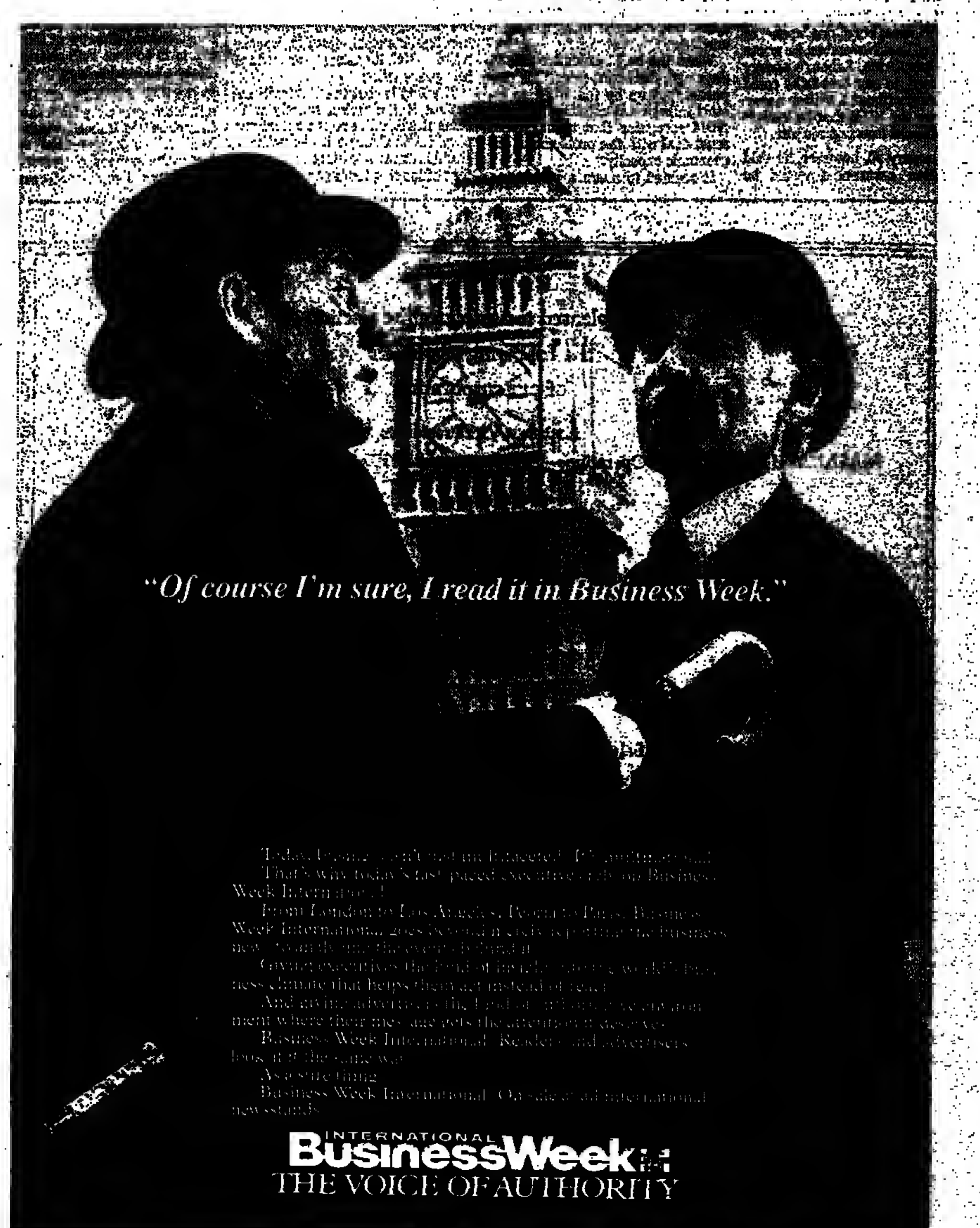
Uniroyal estimates that unofficial exports by dealers from the UK of replacement car tyres will jump from 595,000 last year to about 2m in 1985. Unofficial exports of truck tyres are forecast to increase from 58,000 to 220,000.

Mr Dickson said that the British dealers had recently begun to export to the U.S., encouraged by the strong dollar, whereas in the past they had concentrated almost entirely on countries in continental Europe.

He suggested that the underlying position of the UK tyre industry would generally deteriorate this year. The demand for car tyres as original equipment was likely to be further eroded: Uniroyal forecasts that demand in 1985 will be 5.13m tyres against 5.2m last year, even though UK car production is expected to rise from 920,000 to 940,000.

Demand for replacement car tyres this year is forecast to improve from 15.2m to 16.5m, of which about 11.5m will be provided by UK factories (9.86m last year).

Mr Dickson pointed out that the 1.1m drop in unit sales by the British producers between 1983 and 1984 represented a revenue loss of more than £23m.



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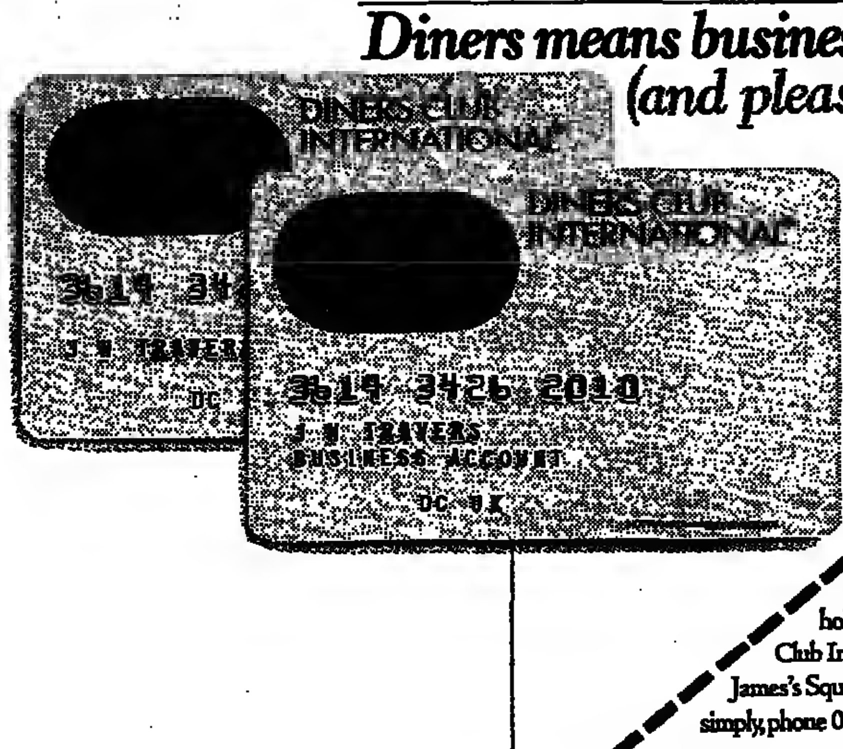

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CAJB

David Lascelles on an issue raised by the JMB affair

Role of bank auditors questioned

THE CHANCELLOR of the Exchequer's review of UK bank supervision, launched in the wake of the Johnson Matthey Bankers (JMB) affair, has got under way with the message that speedy results would be appreciated.

One of the issues the three-man committee headed by the Governor of the Bank of England must investigate is the role of bank auditors. Arthur Young McClelland Moores, JMB's auditors, came under fire for giving JMB a clean bill of health only three months before it nearly crashed.

Whether or not that criticism was fair (and Arthur Young rejects it strongly), it touches on the sensitive question of how far the responsibilities of a bank's accountants extend.

If accountants uncover something suspicious during their audit, they must obviously tell the bank's board. But should they tell the Bank of England, especially if the bank refuses to put it right?

Under the professional ethics that prevail in the UK, they would not be able to pass on their concerns (although they sometimes manage to hint that XYZ bank is worth a closer look). The auditor is responsible only to the shareholders who appoint him.

This is not the practice in many other countries, where bank supervisors and auditors are quite close. Given that UK bank supervision relies heavily on trust and judgment, there may be a case for auditors to act more as the eyes and ears of the Bank of England, horrific though that may seem to many bankers and accountants.

Last September, several senior officials from the Bank attended a conference of international bank supervisors in Rome, where this question was discussed at length.

National practices vary widely, from the U.S., where official bank examiners comb through bank books themselves, to Belgium, where the Banking Commission appoints (and pays for) the auditors of banks in its charge.

The Swiss have a special licensing system for bank auditors which imposes certain statutory duties on them, such as reporting violations (and banks' true profits) to the Federal Banking Commission. West Germany has a similar system.

All these practices are so bound up with each country's banking traditions that it is hard to say which is best.

As far as the advantages to bank supervisors of drawing on the services of auditors are concerned, greater insight into the operations of a bank must be high on the list. Auditors are usually much more familiar with the operations – and management – of a bank than supervisors can be. Provided they are doing their job properly, they should be able to form a reasonably accurate judgment of the quality of a bank and the people who run it, and spot trouble early.

A clear-cut system which obliges auditors to report to bank supervisors also relieves them of the dilemma of how to deal with an unresponsive board when trouble looms. The most UK auditors can do is qualify their clients' accounts or resign, which may be dramatic but not helpful. Toucha Ross in Hong Kong also learnt thet it can be suicidal when it qualified the accounts of Bank Bumiputra's local subsidiary – and was fired.

On the other band, auditors in this situation become the servants of two masters, which creates dilemmas. There is always a danger that the auditor will become too close to management and be tempted to neglect his duties to the bank supervisor, or fail to notice lapses in prudence.

Some of these dangers can be avoided by mandatorily rotating auditors to prevent them developing strong loyalties, or appointing two auditors so that there is always a second opinion.

Another solution would be to have banks disclose more to the public in their annual and interim accounts. This is less a matter for the Bank of England (which is only concerned about the amount of information it receives) than for the London Stock Exchange or the Department of Trade and Industry. At the moment there does not seem to be much pressure for greater disclosure.

Although the idea of accountants acting as agents for the Bank of England seems strange and runs counter to the principle that auditors communicate only with their clients, there is a current of support within the profession for a fresh look at the questions raised by JMB. As that crisis showed, the present system can make auditors look helpless, even foolish.

Talbot warns unions of possible lay-offs over Iran contract

BY ARTHUR SMITH, MIDLANDS CORRESPONDENT

TALBOT UK, a subsidiary of Peugeot of France, has warned the trade unions that lay-offs may be necessary among its 1,400 workers at the Stoke engine plant, Coventry, from the end of next week.

Such action would be necessary unless letters of credit were received early in the week to pay for car kits exported to Iran. The Coventry factory produces kits, worth about £130m a year, which are assembled in Iran and sold as the Peykan. The kits are based on the old Hillman Hunter car.

Political and financial problems have in recent years caused disruption to the deal, which is Britain's biggest motor industry export contract.

Talbot said output of the Peykan in Iran was running at consistently high levels of just under 2,000 a week. The problem was caused by the failure to receive letters of credit.

Similar delays in letters of credit last year pushed the company into a £1.89m loss for the first half of 1984 against a £1.54m profit in the same period of 1983. Even though the Iran problem caused a six week lay-off of 750 workers at Stoke in the second half of 1984, Talbot is thought to have achieved a trading profit for the year as a whole.

Talbot is now investing £30m at its Ryton assembly plant, Coventry, to produce the C28, a family of cars which will go into production late this year.

The company's manual workers drew back from a threatened pay strike and accepted a two-year deal in the face of management exhortations to ensure a viable future for Talbot.

● The first substantial order in the UK for light vans powered entirely by diesel engines has been placed with Ford by the Post Office, John Griffiths writes.

It is taking delivery of 2,000 Escort vans powered by the 1.6 litre diesel engine in which Ford has invested £160m at Dagenham, Essex.

TV-am's happier second birthday

BY RAYMOND SNODDY

TV-AM, the commercial breakfast company that came close to collapse last year, celebrates its second anniversary on the air with a greatly increased audience and brighter financial prospects.

Over the past year ratings have doubled from an average quarter-hour peak of 1.1m to the present level of 2.3m. During the week a total of 13m people watch TV-am at some time, compared with 7m a year ago.

Although the station will probably lose about £3m this year, Mr Bruce Gyngell, TV-am's managing director, believes revenue will total £22m in the year from February 1985. This should provide the first small operating profit. But, as the audience builds week by week, TV-am still has to cope with an accumulated deficit of about £20m which will take years to pay off.

The breakfast channel is now, however, sufficiently confident – with encouragement from the Independent Broadcasting Authority – to begin spending more money on its news service.

An executive editor for news and current affairs and four news editors have been appointed. This allows TV-am to run a 24-hours-a-day news operation. It is also, for the first time, thinking of opening a New York office to improve its U.S. coverage.

The arrival of Mr Jonathan Dimbleby, the broadcaster, at TV-am will also add more current affairs weight. Apart from making the company commercially viable, Mr Gyngell has always said his main priority was to improve the news coverage.

Quotron to expand in Europe

By Charles Batchelor

QUOTRON, a U.S. electronic financial information service specialising in U.S. stock markets, plans a big expansion of its operations in Europe.

Quotron has been upgrading its computer facilities in the UK, the springboard for its European sales drive, and is bringing on stream the first of its regional computer centres to be opened outside the U.S.

That is expected to lead to increased competition in screen-delivered financial services in Europe. Reuters, the publicly listed UK information group, and Telekurs, a Swiss organisation owned by a group of Swiss banks, dominate that market in the field of share quotations.

Quotron, a publicly listed U.S. group, operates outside the U.S. in tandem with Associated Press-Dow Jones (AP-DJ), the newsagency and publishing group. AP-DJ has a 51 per cent stake in non-U.S. operations with Quotron holding the rest.

Quotron's new $3m computer centre should allow it more than to treble the current number of 80 UK subscribers and permit a further development on the Continent, Mr Eli Antar, AP-DJ marketing director said.

It has only eight subscribers on the Continent but recently expanded into France, Belgium, Luxembourg and the Netherlands and has plans to deliver its services to Scandinavia, Italy and possibly South Africa.

Quotron claims to offer a faster and more comprehensive coverage of U.S. stock markets than its main rival, Reuters. The latter said it was extending its coverage of U.S. stock markets, particularly of the options and futures markets.

TECHNOLOGY

EDITED BY ALAN CANE

MODULAR CONSTRUCTION TECHNIQUES MAKE FOR FLEXIBLE DESIGN

Refined thoughts for building construction

BY JOAN GRAY, CONSTRUCTION CORRESPONDENT

A BUILDING should be a refined and industrialised product—like a car or a computer—according to Cambridge-based architect Mr Roger Perrin, who has launched his Tartan building system.

The Tartan system uses a pressed steel frame—"just like a racing car chassis"—on which enamelled metal wall panels can be hung with the same ease as a car's bodywork; and once the building is completed and the steel chassis fixed, the wall panels can easily be moved or replaced to modify or extend the building to meet its occupiers' changing needs.

Building systems and prefabrication are not new technology. There are many in existence with differing success and flexibility. Most are developed to be cheap construction methods.

The idea for the Tartan system started as a result of Mr Perrin's conviction that building technology had stood still while other industries had changed, and that the whole process of putting a building together needed to be rethought. Not just restyled.

"Most buildings and the attitudes behind them are archaic," he says, "and traditional building is totally dated hoth in the materials used and the way they are put together. Just look at the wastage of of materials, labour and time on a traditional building site."

He also wanted to eliminate the frustration he felt working with conventional building techniques, "where if you're always designing buildings as one-offs using different engineers, contractors and quantity surveyors and for different clients you can't achieve as much as fast as if you define a basic product and keep repeating it with variations."

He also wanted to create a system which would make life easier for the client buying the building.

"The problem of buying a new building is that it's not something people do every day, but a big investment and a high risk for the customer," he said. "But we offer a product based on a standard concept varied in detail according to his needs, which they can come in and see in operation before committing themselves."

> The key elements of the Tartan building system are the frame, fastenings and cladding

Because the Tartan system is based on standard modules, Mr Perrin can offer his buildings at a "fixed price and in a fixed time because there is no need for contingencies, as we know the price of all the components and will quote a fixed price for the foundation works which we have done by sub-contractors."

The key elements of the Tartan building system are the frame, the fastenings and the cladding. Rather than using the more conventional hot rolled steel sections manufactured to tolerance of plus or minus 10 mm, the Tartan frame uses pressed steel sections manufactured to tolerances of plus or minus 1.5 mm.

"This accuracy is essential to the Tartan design, because the frames are drilled with holes for the fastening nodes and the passage of services, pipes and cable, and once the basic frame is up everything else depends on it, so there can be no scope for bodging, said Mr Perrin.

The next key to the system is the fastening which hold the pressed steel frame beams together. They provide a universal connection for beams in all directions, and allow extra members to be fastered on to them if the building is to be extended.

"It's just like Lego," said Mr Perrin, "because just as you can use Lego bricks to create things that look very different — drom trees to cranes — so you can use the Tartan system to create very different buildings by altering the size of beams between the fastening nodes and varying the style of the cladding."

Once the framework is up, with the beams connected hy fastening nodes into the required shape and size the walls are added by hooking on lightweight enamelled metal cladding panels.

"They are designed to be fastened on straight from the delivery lorry to the building, first with a special hook-on fastening and then with final fastenings from the inside," said Mr Perrin. "This means the walls can be completed from the shelter of the inside of the building and also means there is no need for scaffolding."

Mr Roger Perrin, left, inspecting his Tartan building system.

The Tartan approach has meant a different type of supplier and a different type of labour force. The pressed steel frame is made by break press fabrication specialists which normally work for the engineering industry; the enamelled steel wall cladding panels are used to enamelling side panels produced by a company more for gas cookers; the windows are made by a specialist contractor more used to manufacturing yacht equipment; and the men who erect the buildings on site are "not traditional huilding industry types but nuts and bolts workers from caravan makers, engineering manufacturers, and heavy goods vehicle fitters."

Tartan so far boasts one finished building, let to a bank, one factory under construction, planning consent for a three-storey office in Cambridge, and a contract to design a headquarters for a high technology company.

Although it is possible to use the system for buildings from houses to three-storey office blocks, Tartan's main market for the moment is "two-storey high-technology office and factory huildings of between 12,000 square feet and 15,000 square feet," says Mr Perrin.

Mr Perrin is convinced the system is also suitable for "upmarket high-tech houses". He is planning to start hy building his own new house using the Tartan system, with walls clad in honey-beige coloured panels to tone with the local Cambridge hrick and the roof made of a single panel hent to a pitch.

He is also hoping that he will be ahle to persuade one of the executives occupying a Tartan factory to "spend £200,000 on a Tartan house which will be featured in a glossy magazine and start a trend."

Meanwhile, he is exploring the possibility of marketing one-forty-second scale Tartan systems as toy huilding kits so that "children of seven years their own miniature Tartan houses, shops, offices, and factories."

Waste

Treating textile effluent

By Anthony Moreton

DRAMATIC REDUCTIONS in trade effluent charges are promised from a system being developed by Wira, the Leeds-based Wood Industry Research Association. A bonus is that it produces useful by-products.

The process is claimed to reduce the pollution load of any industrial effluent and provide savings of up to 90 per cent of the charges made by water authorities.

The system consists of an enclosed, pressurised, anaerobic digester in which anaerobes putrify the effluent, reducing complex compounds to simpler ones. After the effluent has resided in the digester for up to 20 days, its toxicity e greatly reduced, allowing it to be drawn off into settling tanks.

After settling, the treated effluent can tlien be discharged to the sewers in the normal way and the bio-mass sludge residue used on the land as a fertiliser.

A further by-product, methane, is produced in quantities that enahle it to be economically harnessed for space heating or electricity generation.

The system is the result of a 2½-year project funded by the Textile and Other Manufacture Requirement Board, the Confederation of British Wool Textiles and the EEC.

Wira has undertaken a number of previous projects in effinent treatment. One, for Allied Industrial Services, treating 340,000 gallons of industrial effinent a day, paid for itself in two years by producing by-products worth £120,000 a year.

Safety

Fire protection

PUTTIES, SEALANTS and coatings that retard the spread of fire in electrical installations are offered by D. P. Sanders (Industrial) of London (01-437 1876).

The materials, made by Dainichi Nippon Cables (part of Mitsubishi) in Japan, do not need to be applied by experts but can be dealth with by the user when needed, on site. They also have a long shelf life.

Denis Sanders, chairman of the London company, believes there are substantial savings to be made by considering the passive aspects of fire prevention at the design stage. Too often he says, people design the installation and consider the fire risk and its effects when the project is complete.

The materials contain a halogenfree flame retardant, oily binder, inorganic extender and inorganic fibre. They swell up when heated.

A typical application is in filling in bores and clearances where cables penetrate walls and floors, to prevent flame propagation through the hole. The material DF Putty A for example, expands several tens of times at 300 deg C, filling up space created by burnt cable insulation and protecting the non-fire side.

Tests at the Fire Insurers Research and Testing Organisation at Boreham Wood show that the materials withstand the requirements of British Standard 476 part 8.

COMPUTER PRODUCTS

Laser printing

BY GEOFFREY CHARLISH

TWO NOVEL products have come out of Apple Computer (UK) in the last few days—a laser printer that virtually hrings typesetting to the Macintosh personal computer (PC) user, and an Ethernet-based networking system for the computers called AppleTalk.

The printer, called Laser-Writer, is based on a 300-dots-per-inch Canon mechanism, a built-in computer from Apple and some software called Post-cript. It can be shared by up to 31 Macintosh users over the AppleTalk network and will be available in the UK in March. The U.S. price is $6,995 but the UK price is yet to be set.

Business software available for the Macintosh computer will produce output from the Laser-Writer direct. This software includes Jazz, the integrated business package from Lotus, the Microsoft series, and all Apple Macintosh software. Under development by Aldus Corporation is Pagemaker, a package that allows users to design and compose layouts for publications like newsletters and brochures.

LaserWriter accommodates many sizes of paper, transparency material, envelopes and labels commonly used in offices. It can print at up to eight pages a minute, reducing to two or three a minute for complex graphics. Among the founts provided are Helvetica, Times, Courier and a maths set. Point sizes range from three to 72.

Apple plans to release further founts for the printer, selected from the typeface libraries of International Typeface Corporation, and the Mergenthaler, Linotype, Stempel, Haas typeface library.

Postcript is device-independent, so that any workstation including the IBM PC for example, can use the Laser-Writer through Postscript.

The network system, Apple-Talk, can connect 32 devises over 1,000 ft and in the U.S. costs $50 per connection. It can also serve as a "tributary" system, using bridges and gateways to link into other networks.

According to Mr Bob Kissach, UK marketing manager, people in offices "spend most of their time working closely with about five to 25 other people doing related or common work." He claims that so far, networks for these offices have been complicated to install, hard to use and expensive, "all of which has limited the number of PCs currently on networks to about 5 per cent."

Apparently some 50 companies already have products under development for Apple-Talk. They include hardware to connect Apple computers to IBM PCs, an interface to Ethernet local area networks, gateways to IBM networks, a Unix file server and hard disk servers. Apple has published all the protocols for AppleTalk; the architecture is layered and "open" at every layer. More in the UK on 0442 60244.

Software

Instrument controller

AMPLICON ELECTRONICS of Brighton has developed a plug-in circuit board and some software that turns the IBM XT personal computer into a controller for laboratory or industrial instruments connected on an IEEE 488 bus (network).

The company estimates that there are now some 180 instrument companies producing over 2,000 IEEE 488 compatible instruments for use in a wide range of applications in engineering, science, computer-aided design and medicine.

The package allows the computer to command, monitor and record data from the instruments and is manufactured and written by National Instrument of Austin, Texas.

By using further software written by Laboratory Technologies Corporation, also of the U.S., the computer can be interfaced additionally to Lotus 1-2-3, Symphony and other spreadsheet programs to allow the measured data to be manipulated, reduced and analysed to produce statistical results and graphics. More on 0273 608331.

THE MANAGEMENT PAGE

EDITED BY CHRISTOPHER LORENZ

How Silentnight woke up to recession

Nick Garnett revisits a once-booming UK furniture maker

Tom Clarke: trying to get off a profits plateau — Mike Arron

"OKAY, we are a little bit bruised but we are used to the infighting in this industry. There's a profit plateau at the moment and we have to break out of it but I'm pretty certain we can."

Tom Clarke offers no timetable for the "break out," wise perhaps given the clutch of factors which have had the Silentnight Group's long record of rapacious growth stumbling over the past 18 months.

Chairman of a company with a £75m turnover which vies with Christie-Tyler as the biggest manufacturer in Britain's furniture and bed-making industry, Clarke warned in the big profit year of 1982 that dark clouds were looming on the horizon (see Management Page, September 3 1982). The clouds proved to be blacker than the weather forecast predicted.

Silentnight will announce this summer yearly profits under a half of last year's £5.2m. Volume sales of its three-piece suites have slumped by a fifth in the past 2½ years. Buoyant, the group's main upholstery company, dropped a bombshell on its workforce last autumn when it told shop stewards that the wage bill would have to be slashed by 17.5 per cent and if negotiations failed the plant would shut.

The group's biggest company, the Silentnight bed-making operation at Barnoldswick, Lancashire, suffered a year ago its first strike in 40 years, a damaging event Clarke describes as "almost a culture shock."

On top of that Silentnight's carnivorous reputation, earned by gobbling up more than 20 companies since it was formed 40 years ago, took a knock when its attempt to purchase Slumberland from Duport failed.

Everything, of course, is relative. Silentnight's performance is still envied by many in an industry littered with bankruptcies and plant closures. The group's profits are still higher than those of Christie-Tyler, which has only recently moved into the black. It has also managed to keep its headcount pretty much intact, though the workforce has been cut over the past 2½ years by almost 500 to 2,700.

Also every week it makes about 20,000 beds, the mainstay of the group's business and a number which is up by between a fifth and a quarter since the middle of 1982.

Some of Silentnight's difficulties too have arisen out of its attempts to keep the ship on course. Its investment programme is still relatively large and, in some areas, has accelerated.

Nevertheless, Clarke, who started the business with his wife bed-repairing in Skipton, North Yorkshire after the last world war, is having to moderate predictions made two years ago that Silentnight will become by far the most dominant company in the industry. "Achieving that is going to take a bit longer than I thought," he says.

The group warned in the middle of 1982 that cost increases and growing industrial overcapacity would push down profit margins but the squeeze has been rougher than Clarke expected.

One principal factor has been the dramatic growth of MFI and Harris Queensway as furniture and bed retailers and which now account for perhaps 15 per cent or more of national sales for some items.

This has opened up a new era of lower quality, lower price beds. Clarke says Silentnight declined to lower the quality of its then existing bed ranges but has been forced to introduce newer, cheaper beds. "Lower specification has fixed new levels of expectation on price," says Clarke who estimates that retail prices have dropped by 10 to 20 per cent over three years. "It's dragged down the entire market." The Silentnight group sells to Harris Queensway (though not to MFI) and some in the industry believe Silentnight did not see the growth of these two early enough.

Harris Queensway and MFI have been just the two most dominant elements in a gradual concentration of retail outlets within the business.

This factor has exacerbated existing pressures of overcapacity. Clarke is not enamoured of employment support policies which thrust pound notes into the hands of small businesses operating in an already overcrowded industry. "We have one competitor who would be bankrupt without the aid he's been getting. Some companies are selling at unrealistic prices, selling a half crown for two bob, because that is the only way they can keep in business."

The group's upholstery companies—making three piece suites—have chalked up a particularly disappointing performance. This side of the industry has been especially susceptible to new small company formations, usually as offshoots of bigger companies, because upholstery requires less capital expenditure than bed production.

The miners' dispute has also had an unquantifiable impact in the strike areas. "We know of one retailer in Barnsley where the only people who came through the door for one week were his own staff," says Clarke.

With a half of the sale price of beds consumed by raw material costs, exchange rate movements have disturbed all major furniture manufacturers, particularly for dollar-based products such as the chemicals that go into imported Draylon and the coir fibre used in upholstery. Silentnight costs the negative effect of this at tens of thousands of pounds.

Some of the pressures on Silentnight have been exerted internally. Five hundred workers walked out for two weeks early last year in a dispute over management's attempt to tighten the system of payments by results.

Silentnight company's shopfloor labour force is expected to work very hard but Clarke says measurable efficiency had slipped by 25 per cent over the previous two years because of bad management; this was an attempt to regain the initiative. The strike came at a very bad time, disrupting production of the new range, which is updated every 12 months and which retailers are hungry to get in their showrooms quickly.

The group's investment programme of about £4m a year has remained relatively static over the past three years. It is still *one of, if not* the, biggest in the industry, but the balance of expenditure over the past 12 months has been altered with the prospects of a longer pay back.

The group has also stuck to a policy of protecting profits rather than "buying" market share which partly accounts for the steep drop in its three-piece suite sales.

Silentnight has been further bedevilled by some unsettling forced management changes. The group secretary and financial director have both died. Bill McEwan, the company's chief executive, left in November after just 12 months to go back into textiles, which Clarke views as a serious loss though he argues that the group's strength in middle managers in their 40s will ensure good management continuity.

But the Silentnight Group is not one to sit back and twiddle its thumbs. It has been reviewing efficiency and costs throughout its business—resulting in the post-strike deal at Barnoldswick and cost curbs at Buoyant where management secured a 16 per cent reduction in piecework rates, a practice also carried out by other manufacturers, Christie-Tyler among them. Some of the smaller Silentnight Group companies have also been subjected to pay freezes. A reorganised sales structure has brought the seller closer to the customer. More effort is being exerted in distribution; delivery route planning has been computerised and £1.4m spent last year on vehicles.

The managing directors of two of the group companies have been changed, two plants closed—upholsterers Atkin and Ansell in Sheffield and reproduction furniture maker Foster, Binder— and a Scottish timber mill sold. It has also disposed of a leasing company, Colne Valley, raising £2.75m in cash.

The group is making a great deal of its marketing and advertising campaigns and of Super Sleeper which, with continuous coil springs, is fondly described by the company as "the most advanced sleep system in the world" but which forms only 2.3 per cent of Silentnight's output.

"I'm pretty confident for 1985. There's nothing really wrong with the company," says Clarke.

Data protection

Why action is needed now

Richard Evans explains where responsibilities lie

Has your company already appointed a senior executive with a detailed knowledge of its computer systems and all aspects of personal information stored? Such expertise will soon be needed to cope with the effects of the Data Protection Act which, after a bumpy ride through Parliament last year, *is now being implemented* in stages.

Although there still appears to be time before the most significant clauses begin to bite, all organisations in the UK which process personal information on computers, including government departments and local authorities, as well as industrial, commercial and financial organisations, should start considering the wide-ranging implications immediately.

The legislation creates the first general statutory right of access by individuals to computer records containing information on themselves. It also imposes a duty on all who store information in computers to stick to certain principles on its accuracy, security and purpose, and to disclose the names of those to whom the information will be available.

The legislation was produced largely to meet fears that detailed personal profiles on individuals could be assembled without any check on the accuracy of the information collected or the use to which it would be put, or without the individual concerned being aware that a file existed.

But although it is primarily an attempt to meet the potential threat from computers to individual freedom, the law is also vital to trade and industry as it will enable the United Kingdom to ratify the Council of Europe Convention on Data Protection. Without ratification other countries could resist the flow of information across the UK's borders —an action that could prove painful to industry, commerce and the City.

The first provisions, on security, came into force last September and since then an individual has been entitled to claim compensation for damage caused by the loss, unauthorised destruction or disclosure of personal data.

The remaining stages of the timetable will be up to the central figure in the legislation, Eric Howe, appointed in September as Data Protection Registrar, but the outlines are already clear. Once Howe, who is based in Manchester, has completed his preparations, the Home Secretary will name a day—probably in September—after which all data users will have six months to apply to register.

The public register, to be run by Howe and his staff of 20, is intended to reveal who holds data and the broad purposes for which it is held—payroll, customer records, sales, personnel, recruitment etc. It is these purposes that will have to be registered, not particular files or equipment.

After the six months is up it will be an offence to hold unregistered data or to operate outside the registered particulars. Companies will then also become liable to pay compensation for damage caused by inaccurate data.

From CBI's guide to the Act

There will then be a further 18 months, roughly until the summer of 1987, before companies, local authorities and a wide range of other bodies will be required to grant individuals access to information about themselves, and before the registrar can force users to comply with internationally agreed data protection principles.

Anyone will then be able to apply to their company or any other organisation and on payment of a fee see a copy "in intelligible form" of any information held.

Exempted from registration will be data held on home computers for purely domestic purposes, data held for payroll or accounting purposes that will be used for no other purpose, or data relating to national security.

In essence the registrar, certain to be known as the computer ombudsman, is charged with the duty of promoting the observance of eight data protection principles. These seek to ensure that personal data is obtained and processed fairly; held only for specific purposes; is not used or disclosed in a manner inconsistent with these purposes; is accurate and up to date; is not retained longer than necessary; is available for inspection to the subject; and that appropriate security measures are taken against its unauthorised access, disclosure or destruction.

The first general guidelines on the legislation are being drafted by Howe's office and will be published towards the end of the month.

Both the Home Office and the Confederation of British Industry, anticipating a late rush of interest and concern as registration approaches, have published layman's guides. Both agree that the first necessity must be to establish exactly what personal data is held throughout an organisation, since in time all the purposes will have to be filed with the registrar.

The strong advice is for all large organisations to appoint one department or individual to co-ordinate this operation. Users should also look ahead to the time they are registered so that when fresh data is acquired for different purposes, their register entry can easily be updated.

They will also need to examine existing computer systems to ensure they comply with statutory requirements on access. For example, it will be necessary to extract information within 40 days of a request and in a form that can be easily understood.

A particularly important consideration for large-scale processors who hold data for several purposes will be whether to opt for a single all-embracing registration or to choose multiple smaller registrations.

The Act provides that where a data user has separate entries in the register for data held for different purposes, the data subject must make a separate request and pay a separate fee for access to each category. There is a practical reason for this as it would be unreasonable if a simple request for information were to oblige a large organisation to search its entire computerised records just to establish whether it held any personal data.

THE ARTS

Architecture

Colin Amery

Changing the Exchange

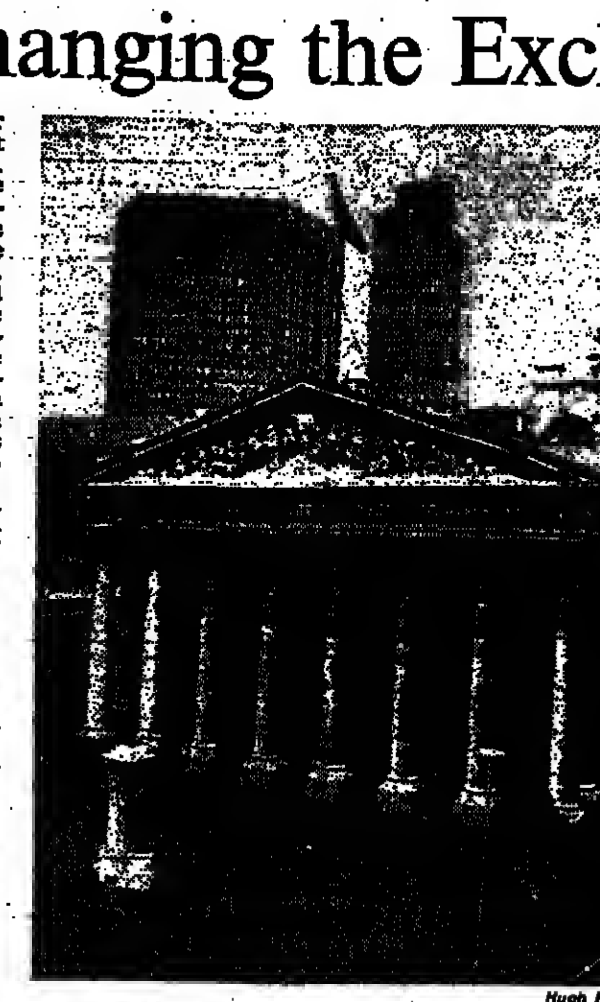
Plans are afoot to alter drastically one of the best known landmarks in the City. Guardian Royal Exchange are applying for Scheduled Monument Consent to raise the present roof structure of the Royal Exchange by two storeys, elevating the central dome and adding two small domes to the arched chimneys. These proposals intended to make the Royal Exchange a more effective headquarters for Guardian Royal Exchange Insurance, have been drawn up by the architects Fitzroy Robinson Partnership and are rather amazing.

The Royal Exchange is a Grade I listed building and an important part of the very centre of the City's townscape. The conservation pressure group SAVE Britain's Heritage have expressed strong objections.

The feel the architects are "monkeying about" with the Royal Exchange to load offices on to it. The proposals are seen by SAVE as a "radical alteration that will destroy the present character of the building." It is rather like adding e couple of storeys on to St Paul's.

The Exchange has not had a happy architectural history. When the old one, which was designed by Edward Jarman City Surveyor in 1669, burned down in 1838 the City authorities held an ill-fated competition to replace it. This was one of the most disgracefully managed of all 19th-century competitions, particularly lamentable because it deprived the City of one of the greatest early 19th the century classical designs by C. R. Cockerell.

Rows over estimates and costs led to two competitions being held—in the second one C. R. Cockerell and William Tite were the only competitors. Cockerell produced a magnificent model of his scheme. Tite, however, did not make a model and he persuaded the committee not to look at Cockerell's as he felt it was unfair to seduce the committee with such a glorious model of the scheme. Tite sounds a rather odious fellow with well-placed friends all over the City.



Hugh Routledge

The Royal Exchange under threat of a compromise to its civic grandeur

His greatest claim to fame is the remark he made to the Prince of Wales: "I have inherited a fortune, I married a fortune, and I have made e fortune." The Prince could only reply, "Lucky man."

Tite's design for the Royal Exchange lacked the brilliance of Cockerell's but today it stands as a prominent example of a grand temple portico expressing its importance as a public building. It also has to be seen as a percursor of the bombastic public architecture of the latter half of the 19th century.

It is worth looking again at the Royal Exchange. It grows in stature for several reasons. It is far more literate and adventurous than Sir Herbert Baker's neighbouring Bank of England. I have always thought that the massive portico, with its eight Corinthian columns is one of the grandest in London. It has e wonderful dark depth to it.

The pediment is full of sculptures by Sir Richard Westmacott — 17 limestone figures dominated by the central personification of Commerce. In the light of the today's deplorable public sculpture this little lot begin to shine.

The central court of the Royal Exchange has never been satisfactorily used. It now houses the London Futures Exchange in rather unattractive temporary premises. Unlike the Manchester Royal Exchange no agreeable public usa has ever been found. The shops do need a bit of cheering up but they should not be anaesthetized so that they look like yet more Covent Garden boutiques.

The roofline of the Exchange is still good, tower and chimneys full of English Baroque vigour just beginning to turn into full Victorian richness. To raise the roof of the court will only confuse the issue and wreck the scale from both inside and out.

It is rather cunning to appy for Scheduled Monument Consent because this could be granted (the Exchange being e Scheduled Ancient Monument as well as a Listed Building) without the necessity of a pnblic inquiry. The architects have also had a series of consultations with that august body, the Royal Fine Art Commission. And what are the outcome of these discussions?

Amazingly that group of architectural gentlemen and ladies have not leapt to the defence of the integrity of e scheduled monument but instead offered this barbaric scheme thei "general support." The Commissioners have offered a few suggestions to make the scheme more in the spirit of Tite, if these are incorporated the principle of adding extra floors to already complete classical compositions will from henceforth have the imprimatur of the Royal Fine Art Commission—an appalling precedent.

I am sure that when the noble Lord Montagu looks *closely at this violation of one* of the monuments for which he is now responsible, he will suggest that this banal and insensitive scheme be dropped forthwith. It needs to be completely re-thought so that the Royal Exchange can be sensitively repaired and restored and made economicaly effective in a lway which will not wreck it for future generations.

Opera 80 in Ipswich

Max Loppert

Opera 80 is in the early part of its Spring Tour, taking e double bill of Verdi's *Masked Ball* and Rossini's *Italian Girl In Algiers* to places normally not reached by professionally mounted opera with a fully constituted orchestra. When late last year the company was rescued from the sentence of death previously imposed on it by the Arts Council, we all rejoiced; after two Opera 80 evenings this last weekend at the Ipswich Corn Exchange, my own feelings of goodwill towards the company were somewhat muted.

The underlying purpose of Opera 80, one assumes, continues to be that of giving many people in its endiences a faithful, intelligible, and intelligent first taste of opera. Tho decision to offer e pocket-*handkerchief* account of e grand opera like *Ballo*, that most hrilliant and exhilarating of all Verdian exercises in large-scale dramatic contrasts, immediately implies in itself some degree of misrepresentation (when the chorus is reduced to one voice per part, and the last-scene elteration of stage and pit orchestras disappears hecause there is no stage band, the losses are of qualities not at all extrinsic to e proper *Ballo* experience).

Even so, a touring production could be made to work if approached the correct way round: that is to say, first acquire a cast of suitable quality, then devise a prodnction to display it—and therefore the work—in the most rewarding light. It seems to me, on the evidence of Friday's performance, that the job had been undertaken topsy-turvy: the productioun idea, by Declan Donnellan (in Nick Ormerod's designs), came first, and then a cast, of notably unequal abilities, was applied to it. The result is not a total waste of time—Mr Donnellan, as tha recent London season of his Cheek By Jowl theatre company has shown, is a strikingly inventiva man of the stage. But as a first-time *Ballo* this amounts to a slight on Opera 80 audiences.

Tho opera (here wa go again!) is updated to modern America; its leading character is a modern state governor, his aides wear the dress of administrative and naval officialdom. The fortune teller lives on the wrong side of town, surrounded by hippy devotees; the "orrido campo" becomes a graffito-bedaubed back alley. For some reason that remained unclear throughout; all are stuck in eye-masks, hideous in themselves, whose actual effect is to limit the natural expressive potential of the whole cast. Verdi's travesty-soprano page-boy, perhaps the single most wonderful imaginativa act of the opera, becomes a female secretary (still called Oscar!). This last was the hardest thing to bear in a performance that someona who knows and loves the work well could otherwise take in his stride; but what on earth could the newcomer make of it?

It was clearly a production imposed upon, and thus not enlivened by, the cast; for none looked really effective in it, and indeed only one member—Neville Williams, in a well-shaped account of Riccardo's music—appeared to make any contact with the work at all. The haritone, Christopher Thornton-Holmes, tho light soprano, Rosa Mannion, and the mezzo, Susan Bickley (not really dark enough in timbre), showed flashes of promise which in other circumstances one could guess better realised; the Amelia was an honourable miscast. I must record that the show goes off, on its own terms, with flair, that Stephen Barlow conducts it with facility, if never really idiomatically, and that Leonard Hancock's dated translation comes over.

If this was a task misbeggoten and evenly executed, it was as nothing compared to tho horrors wreaked on the companion Rossini opera. *The Italian Girl* (given in a feeble new translation by the conductor, David Perry) may not be the most scintillating of his comedies, but tho scoro is delicate, and deserves a production to match—unlike *Ballo* this is surely "real" Opera 80 territory. The modern-dress version devised by Robert Carsen worked instead on the rigorous principle of lowest-common-denominator farce, with a flow of modern-dress gags as tired and crude as it was ill controlled.

Apart from the attractive heroino, Janine Roebuck, tho young cast seems to have gone under ontirely—I say "seems," because Iadmit to fleeing at the interval. No doubt it's too late to work improvements for the rest of the tour (12 towns still to be visited). Before tho next ono, though, there must be a long, hard, fresh think about the why and the how of Opera 80.

The Government Inspector/Olivier

Michael Coveney

In a programme note, Adrian Mitchell invokes Meyerhold in respect of his new version of Gogol's great comedy. One rather wishes he had never heard of the fellow. He claims to have taken all sorts of minor liberties just as Meyerhold had in his 1926 prodnction, and tho National Theatre director Richard Eyre follows suit, adding extraneous linking passages *in swirling* snow, an apparition of Petersburg society and a troika ride episodo from *Dead Souls* in which the presumptuous clerk Khlestakov is transfigured as he beats a hasty retreat from the provincial community he has, well, taken for a ride.

Of course, such trivial innovations and curlicues might be welcomed with rapture if the evening as a whole was even remotely funny. It is not even vestigially amusing. Two chief reasons for this: Mr Eyre and his designer John Gunter have gone rather solemn and ponderous in the manner of people who know they are doing a classic for the National Theatre; and the casting of Rik Mayall, gimlet-eyed pose-picker from TV's *The Young Ones*, is a disaster.

Entering the Olivier arena you see a wash of scenic manuscripts, scrolls and bills. A beetle or binebottle is caught in the middle. This hackdrop rises to yield a clumsy trucking system of Khlestakov's floating bovel and the Mayor's home. A portrait of the Czar dominates the stage which in turn is overrun by Old Mother Russia herself when the peasants and shopkeepers descend on Khlestakov to exact salvation. The visual representation of all this I find no more satisfactory than Mr Gunter's work on *Guys and Dolls* or *Wild Honey*. It is all so mucb lavishness with minimal taste.

Having pinched a bit of Meyerhold, Stanislavski is the next port of call as far as the clerk is concerned. That director, in Michael Chekhov's performance, offered "a complete nonentity, devoid of any gifts or talents whatsoever" (thus Nick Worrall in a recent study). Grotesquerie is wearing after a time, but surely Khlestakov must be really on the point of starvation, or his farcical ingenuity has no spring. Mr Mayall looks like a demented funster from the off, curiously untouched by the fawning attentions of the town dignitaries except when they graze his ego. Admittedly he transmits a trance-like idiocy, puffing on cigars with a fart for an exhalation or—and here I did crack e snigger—finding his hand accidentally stuck to the mayor's hackside.

The mayor, or Governor, is played by a palpably padded Jim Broadbent following strict instructions to be as gruesome and unfunny as possihlo. His hair stands up like a privet hedge and he executes several pieces of delightful business — plonking a Napoleonic hatbox on his bead instead of the hat, rugby-hooking some incriminating papers out of the way while creeping forwards with a subservient handshake — hut his grip on his colleagues is asserted, not demonstrated. The acting is not so much bad as just dull. The prying twins, for instance, missentirely Gogol's intention of showing incompetent surveillance methods with a collapsing door entrance that is *funny the first time* (less so the third) and then capped by an unlikely, invented, descent through the lodging window.

Another invention is the mysterious presence of a silent doppelganger as Khlestakov receives the Mayor's cronies in order to take money off them. This is another echo of Meyerhold that simply does not make sense. And where is the delirious farce of these scenes, the savagoly etched humour of e poseur exploiting the gullihle as they edge criogingly around him, one by one? Ivor Roberts's judge proffers a Masonic thumbshake; Fred Pearson's anonymous schools' inspector cougha on his cigar. Comic tension drains away hy the minute.

Messrs Eyre and Mitchell last (and first) did this play at the Nottingham Playhouse in 1974, Jonathan Pryco coruscatingly memorable as a Glaswegian Khlestakov descending on a post-War Yorkshire hackwater with his Cocknoy sidokick. Ron Pember's Osip is elso Cockney, hnt be makes the part count for little. Otherwise Deirdre Clancy's plush costumes are pressed into mid-19th century Russian service, provincial accents a strange mix of Lancastrian and Humberside. The great drunken climax finds Rik Mayall on the mayor's pedestal. No concentration of effect here to compare with Peter Hall's 1966 classic downstage bunching, from which Paul Scofield all hut fell off the stage. Mr Mayall toys with that idea in the ion scene, then drops it after drawing a blank on the second attempt. It is that sort of an unfunny evening.

Aldeburgh in London

Dominic Gill

Purcell's G minor Chacony for the first piece of music to be heard at an Aldeburg Festival for (then played by a small string orchestra) it opened the very first festival event, a choral and orchestral concert in the Parish Church on June 5 1948. The concert presented by the Aldeburgh Foundation at the Wigmore Hall on Saturday night in aid of the Aldeburgh Appeal also opened with the Chacony, played this time by the Brindisi String Quartet—a well-made and vigorous account, though it was e pity the whola piece was not delivered in the same delicate non-vibrato which they reserved for the last eight bars. One doesn't have to be a purist to find Purcell string music played with such a rich veneer of vibrato a little like hearing Mozart played on a Hammond Organ.

The evening's new piece, and e London premiere, was *Moments of Vision* by Rohin Holloway: a memorandum of about 15 minutes for voice and four instruments, written especially for the speaking voice of Peter Pears, first performed et last year's Aldeburgh Festival. There are certain unavoidahle formal limitations: the music to a melodrama must of necessity be plainly evocative of the werds, rather than ambiguous, or subtly illuminating; and so as not to drown them, it can never be too assertive.

Holloway borrows his prose texts from Siegfried Sassoon, Walter Pater, Virginia Woolf and (if there is a German poet, it would have to be) Rilke. The Sassoon and Pater are delicately pointed, mainly by single instruments: water bubbles, a robin drops down from a tree, crimson light gleams through a fog. The Woolf has the most olaborate *and sensual accompaniment*, as well as the most independent musical life, and seems at times very near to becoming a setting proper.

Pears's delivery was characteristically gentle and urhane, instantly recognoisable. An unassuming, uneventful piece: I suspect that given a lively variety of any good texts, and a half-decent hand at word-painting (Holloway's is better than that), the recipe in any case can hardly fail.

The programme continued as it had begun with Purcell and Britten. There was Purcell-Britten, too: five Purcell songs realised by Britten over the years for various recital performances (sung here by Derek Ragin, Derek Tucker and James Meek): Britten's very early (1930) Quartettino for string quartet; and a pair of Canticles, the beautiful 1947 Quarles setting "My beloved is mine" (no. 1), and tha later, more solf-consciously artificed setting of Eliot's *Journey of the Magi* (No. 4).

More 1955➤/St. John's

David Murray

Thursday's concert in the current London Sinfonietta series, which is maintaining their distinguished standards, offered music so various in scale—from a brief new Boulez sextet to Elliott Carter's dense, percussion-laden Double Concerto—as to test the tricky St John's acoustic hard. The excellent conductor was Oliver Knussen, the harpsichord and piano soloists in the Concerto John Constable and Ian Brown, the high soprano in Alexander Goehr's *Behold the Sun* Deborah Cook. Those last three have heen heard before in the same works, and delivered them here with splendid confidence. In Sinfonietta concerts, however, the music is the thing.

Boulez first. His new *Dérive* is a tribute to Sir William Glock, who has just retired as director of the Bath Festival; the title, as often with Boulez, suggests ambiguous readings, but the easiest one—something like "drife"—answers plainly to the pictorial sense of the piece. Borne up on almost continuous trills and tremelos, gleaming with vibraphone showers, slow languid waves do indeed roll up and back, making soft eddies when they overlap. From the first chord, big succulent chords are the basis of the piece) the score is singularly heantiful: Boulez's fine ear for placing timbres is unmistakable. A third of the way into *Dérive* e sort *of fugato begins to enliven the* texture, but it soon coalesces with the steadily rocking harmony. An encore was demanded and happily given.

The other new work was Poul Ruders' *Symphonic Dances*, a sequence of four "dances" from a frail, lyrical ritual to some energetic whooping with an interesting note of aggression. Conservative in spirit effectively sonorous (if a trifle blotted in this hall); for its length it could usefully have had more hite. Miss Cook's assured way with Goehr's concert aria (now to be part of his opera of the same name) didn't disguise the absence of any sharp profile in the piece, which boasts delicately knitted orchestral middle-voices of no great expressive variety beneath the aerial excursions of soprano and vibraphone. Robin Holloway's *Showpiece*, from the Sinfonietta's 1983 Gala, retains its pugnaciously larky glint; Carter's *Double Concerto is* by now a Sinfonietta showpiece, and its dazzling elaborations made their impact.

'Why Me?' tour

Richard Briers is appearing in Stanley Price's new comedy *Why Me?* at the Richmond Theatre from February 4 for two weeks, end at the Theatre Royal in Brighton from February 18, also for two weeks, before opening at the Strand *Theatre in London on March 5.*

Chicago Symphony Orchestra/Festival Hall

David Murray

On their triumphal visit to London last week, the Chicago Symphony and the conductor Georg Solti offered two programmes. On Thursday they gave the ninth symphonies of Shostakovich and Bruckner, and on this page Max Loppert praised the orchestral playing without reservation: tho strings' "wonderful hreadth and tireless solidity of tone," the "massive but never heavy authority" of the winds. He thought the Shostokovich performance altogether masterly, but found that Bruckner's long-range symphonic thinking "wilted under the Solti glare," with everything "rendered in urgent close-up."

On Saturday, with BBC radio end television in attendance, the Chicago programme consisted of two more familiar warhorses, Mozart's Symphony No. 39 and Chaikovsky's Fourthr, and the British première of John Corigliano's *Tournaments Overture* by way of a preliminary canter. A New Yorker of almost 47, Corigliano bas a considerable list of compositions behind him; the *Tournaments Overture*, written in 1967, is among the earliest of them, and its ambitions go little further than providing an extrovert work-out for e crack orchestra.

That, at least, it does: tho players went through their paces with assertive panache. But the musical material is nondescript, and though it's expertly treated in the modern academic manner it has too little vitality to suggest the intended "contests" between players. The last solid climax comes too long before the end, for the subseqnent round-up of material amounts to re-offering dishes that weren't specially appetising first time round.

Given with e suitably reduced number of strings, the Mozart E-flat Symphony still had a full, *well-modulated sound.* (The Chicago strings *can* play pianissimo; it's just that theirs is bigger than other bands.) One has to say that tho performance was very good in principle, with unexceptionable tempi and beautifully precise ensemble, though the arrival at the recapitulation of the opening Allegro was curiously limp. Solti found some majesty in the Introduction; his treatment of the main movement, carefully restrained, sounded polite rather than affectionate, as also with the Andante. The Menuette had the expected lithe spring, but the high spirits of the Finale were epproached deliberately, almost analytically: interesting, hut decidedly cool.

Chaikovsky's Fourth Symphony was hard-edged as could be, fiercely loud when loud and severely dry-eyed when soft. The opening brass summons, brilliantly delivered, might have seemed less like a kick *between the eyes had the tele*vision lights not been glaring into the audience until the very moment of starting. Later the sole oboe shone, and tho wind-chording was perfection itself, and the strings' *Pizzicato Ostinato* was sensational; it remained an unbending, almost baleful performance. I enjoyed Dehussy's *Fêtes*, their encore piece, far more, where there was room for wit and cheerful life, *and tone-colours of wonderful* imaginative precision.

'Little Eyolf' returns to Hammersmith

The Lyric Theatre, Hammersmith is putting on what is said to be the first London stage prodnetioo of Ibsen's *Little Eyolf* since its presentation at the old Lyric Hammersmith in 1958. Tha cast includes Diana Rigg, Ronald Pickup and Cheryl Campboll and its opens on *February 13.*

Arts Guide

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

Feb 1–7

Music

PARIS

Aniko Szegedi, piano: Beethoven (Tue). Salle Gaveau (563 2030).

Orchestre de Paris, conducted by Carlo Maria Giulini: Brahms Symphony No 2 and No 4 (Wed, Thur). Salle Pleyel (563 8873).

Annick Roussin, violin; Nathalie Bera-Tagrine, piano: Bach, Beethoven, Brahms (Thur). Salle Gaveau (563 2030).

LONDON

Royal Festival Hall: London Philharmonic Orchestra, conducted by Klaus Tennstedt with Alfred Brendel, piano. Beethoven and Bruckner (Tue), (928 3191).

Aldo Ciccolini, piano. Mozart and Liszt. Queen Elizabeth Hall (Wed). (928 3191).

Royal Philharmonic Orchestra conducted by Yuri Temirkanov with Dmitri Alexeev, piano. Saint-Saens, Grieg, Falla and Stravinsky. Royal Festival Hall (Thur).

ITALY

Rome: Auditorio di Via della Conciliazione: The soprano Karan Armstrong. Nono, Schoenberg and Beethoven, conducted by Giuseppe Sinopoli (Mon, Tue). (65.41.044).

Rome: Teatro Olimpico: Chopin: soprano Zora Jehlickova and the pianist Ivan Moravec (Wed). (393 304).

Oratorio del Gonfalone: (Vicolo della Scimie 1/B): The Harpsichordist Lucy Shen playing three J.S. Bach partitas. (Thur). (655 952).

NETHERLANDS

Rotterdam, de Doelen. The Rotterdam Philharmonic conducted by James Conlon, with Ivo Pogorelich, piano. Orthel, Tchaikovsky, Debussy, Rimsky-Korsakov (Thur); Recital Hall: Bach Programme from pianist Jean-Louis Steuerman (Mon); Borodin Quartet. Tchaikovsky, Stravinsky, Beethoven (Tue); Schubert Lieder sung by Elly Ameling, accompanied by Rudolf Jansen (Wed). (142 911).

Amsterdam, Maison Descartes (Vijzelgracht 2a). Boccherini Trio, Roussel, Dohnanyi, Beethoven (Mon). (224 935).

The Hague, Congresgebouw. Dimitri Demetriades conducting The Hague Philharmonic, with Shura Cherkassky, piano. Brahms, Mahler (Thur). (548 000).

BRUSSELS

Bach organ recital, Church of Notre Dame du Blankedelle (Mon).

Musée Instrumentale Anne Froidebise, harpsichord, and Emmanuel and Jean Paul Pirard, flute. Quantz, Bach, C.P.E. Bach and Fredrick the Great (Wed). (511 3595).

Liege Symphony Orchestra conducted by Pierre Bartholomée with Yuri Egorov, piano. Mozart and Mahler (Thur).

VIENNA

Royal Swedish Chamber Orchestra, conducted by Mats Liljefors. Bach, Vivaldi, Scarlatti and Shostakovich. Musikverein (Mon).

Alban Berg Quartet: Mozart, Haubenstock-Ramati and Schubert. Konzerthaus, Mozart Saal (Tue). (72 12 11).

Piano evening with Marie-Catherine Girod. Chopin, Szymanowski, Ravel and Dutilleux. Palais Palffy (Wed). (52 56 81).

Festival Concert: Ensemble Harmonia Nova. Blechinger, Soyka, Holik and Bednarik. Urania (Thur).

NEW YORK

New York Philharmonic (Avery Fisher): Zubin Mehta conducting: Eva Marton, soprano; Peter Hofmann, tenor; Martti Talvela, bass. Wagner: Die Walküre Act I (Tue); Zubin Mehta conducting: Jessye Norman, soprano, Mozart, Berg (Thur). Lincoln Center (874 2424).

Carnegie Hall: Vienna Octet: All-Schubert programme (Mon); Concerto Soloists of Philadelphia, Marc Mostovoy conducting; Paul Badura Skoda, piano. Handel, Mozart, Copland, Haydn, Bartok (Wed). (247 7459).

Merkin Hall (Goodman House): National Chorale soloists, Martin Josman, conducting. Mozart, Salieri (Wed). 67th W. of Broadway (362 8719).

WASHINGTON

National Symphony (Concert Hall): Mstislav Rostropovich conducting: Matti Salminen, bass. Oratorio Society of Washington directed by Robert Shafer. Sibelius, Mussorgsky (Tue); Erich Leinsdorf conducting. Bach, Bruckner (Thur). Kennedy Center (254 3776).

TOKYO

Montreal Symphony Orchestra, conductor: Charles Dutoit. Wagner, Sibelius, Debussy, Ravel. Hitomi Memorial Hall (Mon). Schumann, Mahler (Tue). Tokyo Bunka Kaikan (571 1689).

Amadeus Quartet: Haydn, Mozart, Beethoven. Hitomi Memorial Hall (Thur). (545 8348).

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Monday February 4 1985

The need for cheaper oil

THE Organisation of Petroleum Exporting Countries has refrained from cutting its own throat. Opec's instinct for self-preservation seemed to occasion surprise in the more speculative corners of the currency and futures markets; but on a more sober view, a ramshackle compromise of the kind agreed last week was always the most likely outcome of the Opec meeting in Geneva. There is little more than wishful thinking behind the fashionable belief that the oil cartel is certain to collapse through the action of some immutable law of market economics.

Lesson

If recent events have shown the markets that Opec is still a force to be reckoned with, they should have provided an even more important lesson for the oil producers themselves. Opec survives today because of its members' mutual interest in avoiding disaster; this is hardly a cause for celebration in a body which was supposed to offer its members unparalleled prosperity, not a succession of near-fatal crises.

Opec is in trouble not because cartels which rig prices always get their just retribution. They do not. Opec, however, happens to be a cartel which pushed its price too high for the good of its own members. Partly as a result of its folly in linking prices to the appreciating dollar, Opec has made oil consumption unaffordable and oil production extraordinarily profitable for most of the world. If Opec is to serve the genuine long-term interests of its members, it will have to start reversing this process sooner or later.

Nigeria's troubles, for example, stem not from largely illusory falls in the oil price since 1979, which have been more than offset by the rise of the dollar. If price alone were the issue, Nigeria today would be sitting pretty—every barrel of oil it exports it worth 15 per cent more, even after adjustment for inflation, than it was in 1979 in the currency of its largest trading partner, which happens to be Britain. The reason Nigeria is on the verge of bankruptcy today is that it is selling 40 per cent less of this over-priced oil than it was five years ago.

Nigeria's, and Opec's, only hope of trying to recoup some of this lost output must lie in stimulating worldwide oil consumption with a moderate fall in oil prices. Because they control almost the whole of the world's surplus production capacity, Opec members would gain more than proportionately from any improvement in demand for oil. If, for example, a 10 per cent price cut triggered a 3 per cent increase in worldwide oil consumption after two years, as suggested by OECD estimates, this would amount to 1.4m barrels a day. If all this extra oil demand were captured by Opec, on the grounds that non-Opec producers are already pumping very near their maximum output, the cartel's output could rise by nearly 9 per cent. Adding to this pure price effect the benefits from faster worldwide economic growth, Opec might be able to recoup its revenue losses from a price cut in two years or less.

Payoff

The real payoff, however, would come in the longer term. Nobody could guarantee that cheaper oil would induce substantially higher long-term consumption and lower exploration outside Opec; but against the prospect of sticking to the present miserly production quotas for years or even decades to come, any rational calculation of risks and rewards should suggest to Opec that a co-ordinated, moderate price cut, like the one agreed in March 1983, is a risk worth taking—particularly since a cut of 15 per cent would still leave oil prices in Europe above their March 1983 level.

Of course, the world is not a rational place and it would be too much to expect that Opec would orchestrate a price decline without external pressure. It would be equally unrealistic to ask the British Government to undermine Opec's new price structure in the near future, while memories are fresh of sterling's recent battering.

The Austrian traumas

THE CONFIDENCE expressed by the Austrian Parliament in Dr Friedhelm Frischenschlager, the Defence Minister, can be justified only on grounds of short-term expediency. Had the House voted on Friday to dismiss the minister because of the fulsome and unnecessary welcome he gave to a war criminal released by the Italians, the coalition government of Dr Fred Sinowatz would almost certainly have fallen apart. New elections would have become hard to avoid.

In the present state of public opinion Dr Sinowatz's Socialists and their smaller partners, the Freedom Party to which Dr Frischenschlager belongs, would have stood to lose seats. So, because of the arrival upon the scene of the Greens would the conservative People's Party which sponsored the no confidence motion. Hence all three parties represented in parliament had an interest not to let matters come to extremes.

It is a pity that Dr Frischenschlager should have become embroiled in this affair. Unlike so many Austrians he had proved willing to confront the two traumas of recent Austrian history. In order not to let people forget the horrors of Nazi rule between 1938 and 1945 he arranged for army recruits to take the oath of allegiance on the site of Mauthausen concentration camp. A similar ceremony was held at Karl Marx Hof in Vienna where army gunfire destroyed a Socialist stronghold in the civil war of 1934.

Objections

Both gestures set Dr Frischenschlager well apart from the so-called national wing of the Freedom Party where Herr Walter Reder, the former SS major whose return from Italy caused the crisis, has been lionised as a heroic figure. The minister's personal motives in welcoming Herr Reder remain obscure. But his lack of political judgment is evident. He himself has admitted to having made a mistake. Folly is not an asset to any minister—let alone to the minister of defence.

To Dr Sinowatz the affair must be an insistent warning to impart a greater sense of direction to the coalition which he has headed since May 1983. Affairs have tended to drift and the Government has looked like stumbling from one crisis into another.

The last one broke out when the Government, against environmentalist objections, decided to give orders to build a hydroelectric power station at Hainburg on the Danube. After police had clashed with objectors who had occupied the site, Dr Sinowatz decided to call off the bulldozers in order to give everyone the chance to think again.

Many unresolved issues which Dr Sinowatz inherited from his predecessor, Dr Bruno Kreisky, remain unresolved. No clear line has emerged towards the deficit-ridden industrial holdings of the state. No decision has been made on new fighters for the air force, though its present equipment has been obsolete for years. Progress with curing a structural budget deficit has been painfully slow.

Yet these are really symptoms on the surface only. A deeper malaise surrounds the consensual system that has governed Austrian public life ever since the war. It found its fullest expression in the coalition between Socialists and People's Party which governed the country until 1966. When it was succeeded by one party government—first by the People's Party, then by the Socialists — the consensual system held together. Trade unions and business worked hand in glove and jointly constituted a major centre of power.

Considerations

That alliance exists to this day, but its power has waned. Business and unions are at one in wishing the Hainburg power station to be built. They did not get their way and may possibly never do so. Moreover both the Socialists and the People's Party are split between environmentalists and the so-called "concrete pourers" who do not wish to have industrial development stunted by environmental considerations.

It is a phenomenon very much derived from the affluence Austria has achieved. Affluence indirectly has begun not so much to undermine the consensual social partnership as to make it seem irrelevant to the aspirations of an increasing number of people.

Dr Sinowatz has balanced precariously, trying to satisfy both the new middle classes with their occasionally romantic environmentalism and the organised workers who are afraid that unemployment may rise above its modest current level. The danger is that by seeking to please everyone he will in the end please nobody.

ECONOMIC VIEWPOINT

British economic policy after 14 per cent

By Samuel Brittan

OIL, oil and oil again. The key economic events of the first Thatcher Government were largely dominated, not by the "rigid monetarism" of college debating society imagination, but by the effects on sterling of the second oil price explosion and the coming on stream of North Sea oil.

The events of the second Thatcher Government are likely to be dominated by downward pressures on the oil price and prospect of a gradual rundown of North Sea output. The resulting depressing effects on sterling are the mirror image of the earlier uplifting ones. To cope with them the Government may have to rethink its mix of fiscal and monetary policy in the way discussed at the end of this article.

None of this means that Britain is a one-commodity economy, as some of the sillier foreign exchange market gossip would have it. Oil accounts for 5 per cent of Gross National Product. Net exports of oil amounted to about 7 per cent of total overseas receipts, visible and invisible. Even as a proportion of Government revenue it is only about 8½ per cent.

Nevertheless, as far as sterling goes, the tail wags the dog. The rise in sterling in 1979-80 was far larger than the direct balance of payments gain from the rise of North Sea production or the rise in the oil price would have suggested.

Part of the subsequent fall, which has been going on ever since in a series of steps, is simply a rebound from that unsustainably high level which caused Sir Michael Edwardes to make his famous remark about North Sea oil: "I wish we had left the bloody stuff in the ground."

The true swing in sterling has, however, been very much less than suggested by the often quoted but ridiculous, range

Misleading hang-up on the dollar rate

from over $2.40 in 1980 to just over $1.10 now. These figures reflect the rise of the dollar and have been paralleled by dramatic falls in the dollar rates of most European currencies. Yet West Germany, France and Italy have not had to contend with a public opinion which from the Prime Minister downwards, is hooked on the exchange rate with the dollar.

But even the swings in the trade-weighted sterling average especially on the up side in 1979-81 have been larger than economic fundamentals would justify, and this led many writers of City circulars to look for hidden signs of extreme domestic severity in 1979-80 and of great laxity in recent months.

These explanations are far-fetched. There would have been much less interest in picking over the entrails of the monetary and fiscal statistics if the oil price had not shot up in the earlier episode and been under downward pressure recently.

The probable explanation of the 1979-80 sterling rise is in terms of international portfolio preference. British possession of North Sea resources when the oil price was exploding for a second time, and energy crisis talk was rife, increased the attractiveness of sterling for overseas and domestic holders, who perhaps also liked the look of the newly arrived Thatcher Government.

It is more difficult to say why the more moderate downward shift of the oil price — and that only when measured in dollars — should have a bearish effect on sterling. Certainly the posing of the question "What shall we do when the oil runs out?" has been in highly exaggerated terms.

The speed of decline of oil production is likely to be much more gradual than often supposed. Many North Sea oil operators expect the UK to remain self-sufficient to the end of the century.

It is hardly surprising that the non-oil balance of payments should have deteriorated so sharply when the oil balance has shot up from zero in 1979 to some £7bn surplus in 1984. If the UK moves from surplus to eventual self-sufficiency it would need to find other exports or import-savings amounting to 7 per cent of total overseas earnings. This hardly requires a heroic depreciation.

The UK's position as an international financial centre as well as an oil producer makes the pound more vulnerable to oil price rumours than the currencies of say Norway or the Gulf states. We just have to accept that the sterling market is dominated by matters such as talk in New York of a $20 oil price and tends to fluctuate with OPEC's fortunes.

If a domestic cause is required for sterling's difficulties it is the coal strike, in both its psychological and arithmetical effects. The extra £2 to £3bn that the strike has added to public spending and public sector borrowing and subtracted from the current balance of payments surplus (yes, surplus) have strained credibility too far.

The public expenditure total is always an aspiration and a struggle; and the coal strike has been piled on top of the normal overshoot which the contingency reserve is there to provide for. The fact that public spending has gone over the top in 1984-85 casts extra doubt on the longer term annual Public Expenditure White Paper which is no more nor less unrealistic than earlier White Paper. Their purpose is to stake out lines for battles between the Treasury and the spending departments.

But there are less tangible factors too. The British Government may be conscious of having gained the upper hand against a miners' strike for the first time in postwar history and having avoided the fate of the Heath Administration. But further from UK shores people are now catching up with the fact that the strike has been going on for nearly a year, that the strike has been conducted with an unparalleled violence and intimidation whose true instigators have never been brought to book; and that Britain seems a bitterly polarised and divided society whose senior university reserves for the Prime Minister a hatred which would be better directed against Arthur Scargill.

Those economists and financial analysts who have always wanted a quick move to zero inflation and balanced budgets, and who always thought financial policy too lax, are entitled to respect. But many of those who now make this criticism were only a little while ago decrying the concern for monetary targets, and denouncing the Government for being too puritan in not taking capital expenditure out of the Budget and making numerous other adjustments which would have allowed more spending.

Monetary and fiscal policy are of course merely means for regulating domestic demand. With the national income in money terms (Nominal GDP) rising by less than 7 per cent per annum and with inflation below 5 per cent and unemployment at well over 3 million and still rising, the case that demand has been rising too quickly, or about to do so, seems to me very weak. One can accept that pressures on sterling have forced a harder line without regarding these pressures as some divine punishment for domestic profligacy.

The Treasury has made too much of a mystery about sterling being a possible indicator of monetary conditions. The effects of a lower pound on inflation are not mysterious. There is the direct effect on import prices. There is also the ultimately more important effect in raising the prices

Sterling fall not desired by the Chancellor

which British producers can charge against competitors at home and abroad. The critical point is where import-induced inflation, combined with fatter profit margins, feeds through into higher pay settlements.

The degree of depreciation consistent with any given inflation target depends on what else is happening at the time. The weakness of commodity prices and the low rate of "world inflation" allowed the Government to tolerate the modest 7 to 8 per cent depreciation which occurred in 1984 against the mark and non-dollar currencies.

But any acceleration of this decline was likely to risk a revival of inflation. Hence the 4½ per cent increase of base rate. The irony of it is that the hysteria surrounding the sterling dollar rate has been one of the forces threatening to weaken sterling against other currencies as well.

The British Chancellor, Nigel Lawson, did take some "risks" with lower interest rates in 1984 to stimulate economic growth. In pursuit of this he was prepared to tolerate a very limited depreciation of the pound. But that depreciation was seen as a cost not a benefit and there was always a limit to what was tolerable. (Even the "Treasury Model" now shows depreciation tending to reduce output and employment.)

The Chancellor's main mistake was to say too little and stick to obscure Treasury formulae. There is a case for playing your cards close to your chest, but not if those around you stump around in hob-nail boots. Somehow or other the impression got around that the Government did not care where sterling went; and even when Treasury and Bank officials changed their tune, messages of indifference to sterling were coming from No 10.

The lesson of the episode surely is that the Chancellor, who is not personally enamoured of the lobby system, should give regular on-the-record briefings so that his own views and intentions are clearly known and do not have to be sought in obscure passages of Hansard. This is more promising than trying to gag officials, which cannot be done in a free society where people's views become known without anything so wicked as "talking to the Press."

For the time being cautious will be the order of the day. Caution will be the watchword both on tax cuts and interest rates. But one cannot always live in a bunker; and when the time comes to relax some re-examination of priorities will be in order.

Since the Thatcher Government came to office—indeed since Denis Healey started talking to the IMF in 1975-76—the object of financial policy has been to allow enough expansion of monetary demand to secure a reasonable growth rate but not to finance a reacceleration of inflation. This is what the Medium Term Strategy is for.

But there has also been a subsidiary strategy which perhaps I underplayed because I never really believed it. This was to follow a tight fiscal policy in the hope that this would permit low interest rates without inflationary consequences.

The snag is that the level of interest rates is set in a world market. Countries with low inflation expectations like Germany or Japan will have nominal interest rates below the world average, and those with higher inflationary risks, or where depreciation is expected for other reasons, will have relatively high rates.

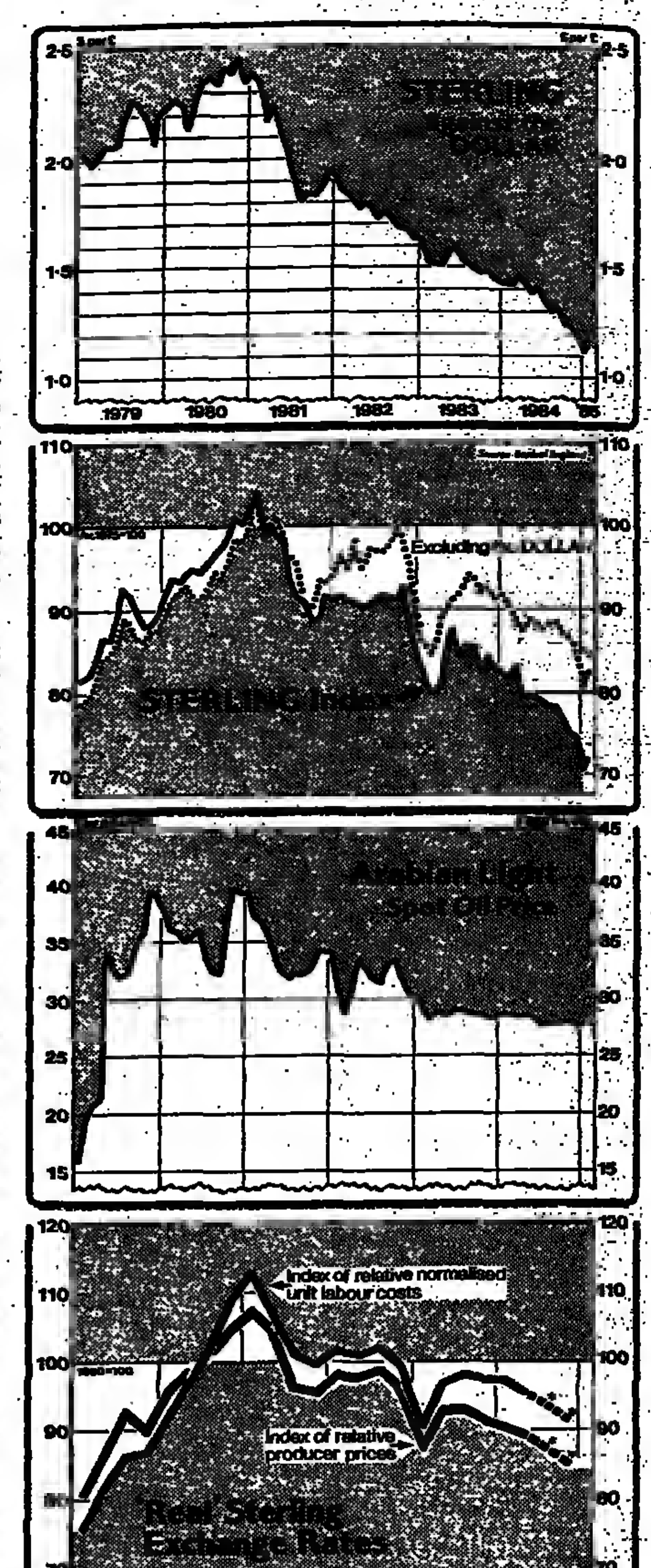
A higher national Budget deficit can best be regarded as a bid for a higher share of world savings. So long as confidence is maintained that monetary policy is on a non-inflationary course, the main effect of higher borrowing by any one government is to attract overseas funds and to bid up its own exchange rate. This "counter-intuitive" proposition was mentioned in an Economic Viewpoint of March 8 1979, when Mr Healey was still Chancellor, and it subsequently became the U.S. Council of Economic Advisers' main explanation of the high dollar.

It follows that when the Government is worried that its currency is too high or rising too quickly, a lower Budget deficit is in order. This was already the case in the last Healey period and became even more so in the early Thatcher period.

Similarly, now that sterling looks like being more often too low than too high, a somewhat higher Budget deficit could attract funds to Britain and bolster sterling. It cannot of course be emphasised sufficiently that the restoration of confidence is a prerequisite of any such move. But once that has occurred, say later on in 1985 or 1986, a change in the policy mix to somewhat looser Budgets offset by tighter money, may be an improvement on the policy combination previously pursued.

Or to put it another way: just as the U.S. needs a little less Reaganism, maybe the UK needs a little more.

This, however, is to look ahead. For the moment, financial rigour rules. The main hopes for an alleviation in unemployment must come from labour market moves. As it is so inhibited on strategy, the Government should be less afraid of so-called palliatives such as community programmes and reductions in National Insurance contributions for low paid or newly recruited workers. Palliatives are better than dole queues.



Bob Hutchison

Men and Matters

Trouble over Airbus seats

The top management shake-up at Airbus Industrie is turning into a messy business. The four nation European aircraft manufacturing consortium has failed to come up in time with a replacement for Bernard Lathiere, Airbus president for the past 10 years, who steps down today.

While the consortium tries to sort things out, it has decided to appoint as interim chief executive, Roger Beteille, the executive vice-president and general manager of the group, who had asked to retire for health reasons.

The affair is all the more embarrassing for France since the French socialist transport minister, Jean Auroux, announced on Friday that Lathiere's successor had been found.

The man named was Jean Pierson, 44-year-old head of the aircraft division of Aerospatiale, the French state-owned aerospace group, who worked on Concorde and has been involved with Airbus since 1975.

But Auroux's announcement was a bit premature. A few hours later, an Airbus board meeting ended in Munich without a firm decision.

In an official statement at the weekend, Aerospatiale claimed that Pierson will be the only candidate for the post. The face-saving communique added that since the start, the Airbus chief executive has always been a Frenchman, and that Pierson had been accepted in principle by the other partners in the consortium.

But while it seems likely that Pierson will get the job in the end, the other partners — Britain, Spain and especially West Germany — appear reluctant to accept another Frenchman to succeed Beteille in the number two spot.

The Germans would like Johan Schaeffler, head of the aircraft division of Messerschmitt-Bolkow-Blohm, to get that job if not the top post.

And they are in no mood to let the French walk off again with all the top Airbus jobs. Indeed, there has even been talk of a proposal to appoint three vice-presidents (one German, one British, one Spanish) to flank the new French president.

The Airbus board is due to meet again shortly to resolve the succession problem — but the issue is now likely to be raised during the official visit to Bonn today of Laurent Fabius, the French prime minister.

Sporting bet

Sports stars have long been valued for their help in selling consumer goods. Now, if events in the oil-rich Canadian province of Alberta are anything to go by, bankers, too, are beginning to appreciate their worth.

The Alberta Treasury Branch, the provincial government's banking arm, has accepted the contracts of players and coaches with the Edmonton Oilers, North America's champion ice hockey team, as part collateral on a C$31m (£20.6m) loan to the flamboyant entrepreneur, Peter Pocklington, who owns the team.

Regarded as especially valuable are the two contracts signed by Wayne Gretzkey, the 23-year-old Oilers' player who has become, as they say on the sports' pages, one of the living legends of North American sports.

Gretzkey and his team-mates have been a better risk lately than most of Pocklington's other ventures. His business empire, which has included financial services, meat-packaging, a motor dealership and soccer and baseball teams, has shrunk in less than four years from assets of C$1.4bn to C$150m.

Pocklington spent $C1m on a futile bid 18 months ago to capture the leadership of Canada's Progressive Conservative Party

"Of course when I was your age you could get ten bars of chocolate for a pound and still have change for a packet of crisps"

Rolls reactor

Sir Francis Tombs thought he'd had enough of state industry when he walked out as chairman of the Electricity Council in 1980, piqued by the Government's refusal to unify the electricity supply industry as its predecessors had promised him.

He rebuffed every Government effort to woo him to another nationalised industry chairmanship. So why, at 60, has he now changed his mind and taken over at Rolls-Royce?

Rolls-Royce is different because of the Government's clear intention of privatising it, he says — though he simply laughs drily if asked: "When?"

Tombs has been a non-executive director of Rolls for the past two years, but since leaving the Electricity Council he has built a new career as a company doctor, tackling such ailing companies as Weir, and Turner and Newall, and the novel challenge of the embryonic biotech company, Celltech.

Tombs says he took lessons from Lord Weinstock, for whom he worked for five years in the early 1960s, building large turbine generators.

In the 1970s, he disagreed vehemently and publicly with Weinstock in opposing the choice of the U.S.-designed pressured water reactor. He still does — so far as electricity supply is concerned.

But not for submarines. Rolls-Royce is the Royal Navy's main contractor for the PWRs which power Britain's nuclear fleet. It has built about 20. Tombs sees the PWR providing "exactly the right conditions for submarines."

So far, Rolls has built anglicised versions of the original U.S. submarine reactor, updated by its own fuel technology. But shortly, it will roll out PWR2, the first all-British PWR, factory-built as a single 1,600-tonne assembly at Barrow.

This will be the powerplant for a new class of hunter-killer subs, and later for the big Trident boats.

Paper money

Apart from its cars, Austin Rover's plant at Longbridge, Birmingham, also produces some 13,000 tons of waste paper every year.

Now, four apprentices have come up with a scheme to turn the paper from secretaries' waste bins into fuel pellets which could replace coal in the plant's boilers.

Longbridge consumes as much electricity as a town the size of Oxford and burns over 77,000 tonnes of coal a year, costing £4m — over £50 a tonne.

Andy Barr, AR's managing director, operations, has ordered a feasibility study into the paper conversion scheme which, it is reckoned, could save up to £500,000 a year for an initial investment of £200,000.

Observer

FOREIGN AFFAIRS: JAPAN'S DEFENCE SPENDING

The barrier that may soon fall

By Ian Davidson in Tokyo

ONE WAY or another, it begins to look almost inevitable that Japan's defence spending will this year break through the magie barrier of I per cent of gross national product which bes been a totem in Japanese politics ever since it was voluntarily erected in 1976 by the then Prime Minister, Mr Takeo Miki. Until it is broken, the 1 per cent figure will be a subject of intense political controversy, not only on the part of the Socialist Party, the largest opposition group, bnt also within the ranks of the ruling Liberal Democratic Party, as it was in last week's debate in the Diet. But even if tha barrier fails, it is clear that Japan will still be a long way from having a plausible defence posture, let alone a coherent geo-strategy which commands broad-based domestic political assent.

As a former Defence Minister, Prime Minister Yasuhiro Nakasone has long been an advocate of a stronger defence posture, and this year's projected increase of 6.9 per cent in nominal terms (or about 4.5 per cent in real terms) leaves defence spending at 0.997 per cent of GNP. What is likely to push it through the magie barrier will be the public service pay increase which is due to be awarded half-way through tha year.

Yet though Mr Nakasone was reappointed by bis party to the premiership last year, in principle for a second two-year term, his position is anything but secure, and he has been unable to confront the 1 per cent issue head on. Despite what everybody assumes to be almost inevitable, ba argued last week in the Diet that the final defence spending outcome was unpredictable because of uncertainties about the future pay increase and about the eventual rate of economic growth. The furthest he dared go was to hint that the Government might review the 1 per cent position "if necessary."

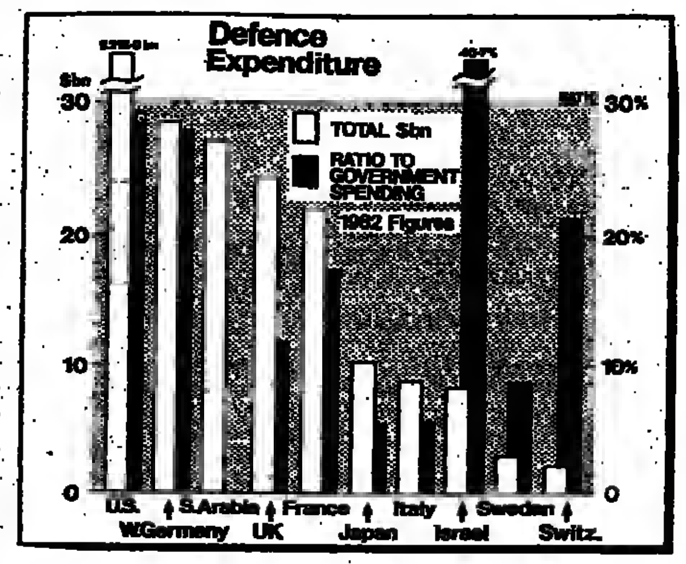
His evasiveness did not go unchallenged, even from within his own party: a group of Diet members, including two of Mr Nakasone's predecessors, Mr Miki himself and Mr Zenko Suzuki, publicly called on the Government to respect tha 1 per cent limit, on the grounds that the breaking of the barrier *could* lead to unrestrained defence spending and would bave adverse political effects abroad. Just what this public dissent adds up to in the obscure world of Japanese political manoeuvring it is hard, perhaps impossible, for a foreigner to assess; it may be little more than a pretext for rival factions to put pressure on Mr Nakasone in advance of elections which, some observers believe, could be brought forward to this year. But if the 1 per cent barrier is broken, that must create a new situation which, Japanese strategic analysts hope, will focus debate on more meaningful measurements of Japanese defence policy.

What the breaking of the 1 per cent barrier will *not* do, one may confidently assume, is open the floodgates to an uncontrolled rush of defenca spending in future: there simply is no political constituency of any size for such an idea. Even more constricting than the Miki ceiling is the post-war constitution which renounces war as a sovereign right of the nation, and while the opposition Socialist Party has come round so far as to admit that the Self Defence Forces (SDF) are legal if unconstitutional (a curious position, in all conscience), it remains wedded to the idea of unarmed neutrality. The trauma of the disastrous consequences of World War II remains etched in the publie memory; and in any case it has for 40 years been politically convenient, and economically advantageous, to shelter demurely under the wing of the American superpower.

Symptomatic of public attitudes to defence spending as reflected in the media was an editorial last week in the *Asahi Shimbun*, Japan's second largest-circulation newspaper, urging that the 1 per cent ceiling should continue to be respected, while conceding that it would be difficult to know where and how to make the corresponding cuts.

The trouble with the 1 per cent totem is that it derives from a bygone era. In the late 1950s and early 1960s defence spending was consistently above 1 per cent, though starting, of course, from e very low base. By the late 1960s, however, despite relatively rapid annual increases, it shrank below the magic I per cent because it was easily outpaced by the phenomenal growth of the Japanese economy.

During the early 1970s, defence spending was still rising rapidly in percentage terms, but by then the context had changed. The first of the two oil shocks had reduced tha economic growth rate from around 10 per cent a year to around 5 per cent, with sharp zig-zags up and down; and East-West relations were briefly passing through the era of detente, characterised by the first Strategic Arms Limitation Treaty (Salt) and the Helsinki agreement of 1975. It was in the following year that the Miki Government enunciated the 1 per cent guideline, as well as tha National Defence Programme Outline which remains to this day the basis of defence planning.



Since then, of course, a great deal bas changed, not just because the election of President Ronald Reagan ushered in the sharpest frost in U.S.-Soviet relations since the Cold War, but because of the rapid increase in Soviet conventional power, most visibly in its naval forces in the Pacific.

It is sometimes said—indeed, it was said to me last week in Tokyo—that Japanese perceptions of geo-politics tend to lag several years behind the rest of the world. Like many such generalisations, it may be only partly true; and since the remark was made to me by one of Japan's leading strategie analysts, it may have contained an element of elegant self-deprecation on behalf of his countrymen. At all events, by now the evidence that we no longer live in the age of detente ought to be undeniable, even in Japan.

In a departure from the traditional way of doing things, Prime Minister Nakasone set up a lay study group to examine Japan's security position; wben it reported last December it argued not merely that the 1 per cent ceiling, which might have bad some justification in 1976, should now bo reviewed in the light of the changed international situation, but it also recommended a reconsideration of the 1976 National Defence Programme Outline.

Similarly, the Researcb Institute for Peace and Security, Japan's leading strategic studies centre, last November submitted a report to the Government in which it roundly dismissed the 1 per cent ceiling as having no rational basis et all, and argued that it would be difficult to reach the 1976 defence targets without breaching the ceiling. It made ritual obeisance to left-wing demands for restraint in defence spending, but maintained that this should be achleved in other ways.

In the past, much of the foreign (ie American) criticism of the Japanese defence bndget is that it is simply too small and growing too slowly to reach the 1976 targets until the end of this decade (if ever), let alone the rather more ambitious goals suggested by Washington. The RIPS report goes further, and argues not merely that the 1976 targets were misconceived, but also that there are major inefficiencies in the way the defence forces are managed.

The ground defence forces get the largest share of the budget, but in reality the top priority should be air defence and anti-submarine warfare. The tronble with this recommendation is that the three defenee forcea are virtually independent lobbies; and the corollary of that is that their rivalry virtually precludes the possibility of combined operations, and that there is no effective unified joint defence command.

What is required, according to tha RIPS report, is e strengthening of the position of the chairman of the Joint Staff Council in the military spbere—at present ba is just the highest ranking officer—and the formation of a Defenee Deliberation Council in the political spbere, in order to ensure continuity in defence policy, despite the musical ehairs in the office of prime minister.

But perhaps tha most sensitive defence policy issue facing Japan is incapsulated in the term "collective security." The fundamental premiss of the 1976 National Defence Programme Outline was that the international situation was basically stable, that Japan's nltimate safety rested on the security treaty with the U.S., and that therefore Japan'a national defence requirement was only for the capability of resisting e "limited and small-scale aggression" against Japan itself.

This fomulation satisfied the essential political requirement, first that Japan would only engage in self-defence, second thet it would not get dragged into any superpower conflict on the coat-tails of the Americans. But Professor Seizaburo Sato, an iconoclastie analyst at Tokyo University, openly scoffs at the idea that there could be circumstances in which Japan—let alone that the global situation is essentially stable; and the RIPS report, while professing not to challenge the 1976 threat assessment, in practice argues that the shift in the U.S.-Soviet power balance will call for a sharing of defence roles between Japan and the U.S. Hitherto the Constitution has been interpreted to mean that anything smacking of collective security is ruled out, but tha RIPS report takes a different viaw: "As far as security in the present age is concerned, there can be nothing but collective security."

To an outsider, it is far from clear how the debate will progress from here. If the current clamour for sticking to the 1 per cent guideline proves more ritualistic than real, then the proponents of restraint in defence spending will have to shift their ground towards some different criteria. In thet process, they might be forced to consider military output rather than simply financial input—what defence capability Japan really gets for its money, rather than just the money it spends. Conceivably, the political elite might have to debete the fundamental purpose of defence spending—though that may be too much to ask.

Unfortunately, there are major inhibitions which are likely to impede any cool reappraisal of security policy. The first inhibition derives from Japan'a atructural military weakness in relationship to the U.S. Tokyo has long believed, and rightly, that security depends on a broad gamut of diplomatie and economic policy, as well as on defence. If, against the odds, the Government were to edge closer towards a concept of collective security, it could scarcely do so in the exclusive context of the U.S.-Japanese relationship. It would need to find other interlocutors as well, starting, no doubt, with the European members of the Atlantic Alliance: yet European-Japanese relations are far less developed than those between Europe and the U.S., or those between Japan and the U.S.

The second inhibition is psychological and intellectual, there is virtually no tradition of strategic debata in Japan, even in academic circles and it is not a popular subject. When Professor Sato proposed, five years ago, the first ever course in strategic studies at Tokyo University, be was strongly advised against the idea by his superiors, on the grounds that it would be disruptive. Mr Tomohisa Sakanaka is one of Japan's best-known defence commentators, on the *Asahi Shimbun*, but the general ambience for his subject is so little favoured that he is leaving to take np a university post. Inhibitions like these will not be swept away simply by the breaking of the I per cent barrier.

Lombard

Airports and emotion

By Michael Donne

ANYONE reading the Stansted debate in Hansard, and noting the subsequent vote and Tory rebellion against the Government, could be forgiven for believing that the issue was all about putting down a brand new airport in beautiful unspoiled countryside, wasting vast resources on an unnecessary white elephant to appease yet again a rapacious eviation industry.

The facts, which somehow got lost in the emotion of the debate, were about developing an airport in the most appropritae place to meet an undeniable level of future demand an airport, moreover, that exists, baving been there for over 40 years, with one of the longest runways in the country, and with a new motorway, and an inter-city rail link, close by.

Stansted qualifies because it is there. It is under-utilised, a major economie asset that could, with new terminals, bandle up to 15m passengers a year or more, but which today handles only about half a million.

What also got lost in the debate was any kind of recognition that aviation is one of the few industries in the UK whicb consistently earns a surplus on foreign exchange. It is vital to trade and communications, employing directly more than 10,000 people and many more indirectly. It pumps into airport localities many millions of pounds a year. It has one of the highest growth rates—over 10 per cent in London and the South-east last year, with Manchester recording 16 per cent. Aviation needs the ground infrastructure to meet such growth.

More than anything else, the need will be for runway capacity Traffic growth is increasingly dominated by smaller, short-baul aircraft, rather than long-haul Jumbos. To meet that growth, more use must be made of every available runway, besides constructing more terminal buildings.

It is easier to build terminals than runways—one can put another terminal into Heathrow, but not another runway. If the Government insists on maintaining its environmental pledge of no more than 275,000 aircraft movements at Heathrow e year, it is difficult to see bow even a fifth terminal can be built there, with its additional 15m passengers e year and all the associated aircraft movements. Already Heathrow is close to saturation with 272,900 movements last year (including helicopters).

Runway capacity will thus increasingly be the dominant theme. While the difficulties of air travel to and from London increase through the rest of the 1980s and beyond, Stansted, protected by its parliamentary vote and its vociferous environmentally-orientated minority, will peacefully slumber on undisturbed, like a sacred cow.

That the debate was dominated more by emotion than by aviation was also demonstrated by the fact that MPs, anxious to avoid the development of Stansted on environmental grounds, argued just as ruthlessly for the expansion of Heathrow, disregarding the environmental rights of those living round that airport.

The "Case for the North" was pursued with equal vigour, and just as complete a lack of understanding of what aviation expansion is all about. Regional airports are growing, and will continue to do so. There is a case for more generous government attitudes to their development. But they cannot be boosted artificially by forcing in travellers who do not want to use them.

Tha basie position, therefore, bas not changed. For the rest of this century London and the South-east will need more new terminals, and must make maximum use of all available runways, including Stansted.

If Stansted, and a fifth terminal at Heathrow, are denied, where does that leave civil civil aviation? Millions will want to come to London, but where will they go, if they can't get in? Some may choose the regions, but most will go elsewhere — to Frankfurt, Amsterdam and Paris.

Increasingly, it can be seen that the cancellation of an off-shore airport at Maplin in 1974 was a short-sighted political mistake. Had it been retained, none of the current problems would have arisen. Perhaps, after all, the real solution to tha current conundrum, even at such e late stage in the day, is to revive the Maplin option.

Letters to the Editor

Have the cake and eat it

From Mr N. Brittain

Sir,—In the current debate on the best way to stimulete growth in the economy and reduce the level of unemployment, the respective exponents of restricting growth in PSBR and Keynesian-inspired investments in the infrastructure present their cases as if the two approaches are totally incompatible. But need this be so? Could we not actually "have our eake and eat it?"

The dilemma the Government is facing essentially seems to arise from the fact that public expenditure in this country is controlled on a cash basis with capital and revenue spending being edded together for the purposes of determining budgets and PSBR. Because of this, it is bardly surprising that, at a time when Government wishes to restrict the growth in its total expenditure, it is the capital rather than the revenue items that tend to suffer most. The reason for this is, of course, that the letter is normally more immediate by nature, is much more difficult to reduce in the short term, and covers the cost of the bureaucracy charged with the responsibility of implementing the policy.

The dilamma, bowever, might be avoided to a greater or lesser degree if e substantial proportion of traditional pnblie capital investment were to be funded by the private sector, with an appropriate rental then being charged to the various publle agencies for the assets that they used. Following the example of the French in regard to the funding of some of their "autoroutes," such a charge, as in a hire purchase agreement, might incorporate an element of eapital restoration so that the asset, in due course of time, wonld be acquired by tha state.

The adoption of this approach would provide the Government, at least in the short- to medium-term, with the opportunity of increasing the level of its eepital investment considerably while, et the same time, avoiding any eorresponding strain on PSBR. The philosophy could indeed be extended further, with existing publicly-owned assets being sold to the private sector and then leased back, as is the common practice of companies wbo have a cash flow problem. This offers the distinct and seductive possibility that PSBR could actually be eliminated altogether, notwithstanding the much higher level of public sector orientated investment activity that would be achieved!

Whila it might be argued that the adoption of this policy would provide no more than a cosmetic solution, with financial institutions being encouraged to fund tangible assets rather than purchasing the Government gilts that contribute to their funding as at present, it is likely that a beneficial spin-off could be a dampening influence on interest rates which would be good for both investment and inflation in itself.

Nicholas P. Brittain.

Churchfields, Church Lane, Witley, Godalming, Surrey.

Taking early retirement

From the Chairman, Superannuation Fund Group, Kent County Council

Sir,—I view with considerable concern reports suggesting that the Chancellor of the Exchequer might introduce taxation changes relating to pension benefits and investments. These reports have referred to the taxation of lump sum benefits on retirement, tha discontinuance of tax relief on pension contributions, the taxation of investment income and also capital gains. The Chancellor's statement in the House of Commons on December 13 alleviated some of this concern — but not very much. By restricting his assurances to the issue of taxing lump sum benefits and then only for the 1985 budget, e great deal of doubt is left concerning his intentions in this area.

Tbe taxation of investment gains and dividends would cost the local authorities within Kent abont £9m each year, which could only be found by an increased levy on the ratepayers of more than 4p in the £, equivalent to £7.60 per annum for the average householder. Also, the increases would represent a further imposition on businesses struggling to survive the economic recession. Taxation on this scale would far outweigh any economies that have been achieved by sound investment management.

The taxation of lump sum benefits would mean that the expectations of existing staff on retirement would not be realised although many have already made adjustments to their standard of living based on these expectations. Without e much clearer statement of long term intentions in this area, the most experienced senior staff are likely to continue the trend recorded over recent weeks and to opt for early retirement as a pension protection measure. Ending the tax relief on employees' contributions would impact significantly on employees' take-bome pay and might give rise to exaggerated pay claims at a time when public sector pay increases are being beld under strict control. Neither of the above consequences can be looked on favourably by any responsible local authority member.

I would hope that these recent reports prove to be without foundation and that the Government listens to the counsel of those within the pensions industry, before tampering with funding arrangements that bave worked well for many years.

(Councillor Sir) John Grugeon.

Sand Pett, Charing, Ashford, Kent.

Extending the VAT net

From the Finance Director, London and Leeds Investments.

Sir,—I read the leading article in your issue of January 21 with regret and dismay.

The writer states that one genuine reason for wanting to extend VAT is to achieve a greater degree of fiscal neutrality, but that fiscal neutrality requires that taxes should not interfere with business (or personal) decisions. In the concluding paragraph, bowever, the writer exhorts tha Government to show much more vigour and ingenuity in the quest to make VAT more comprehensive.

The imposition of VAT on the construction of buildings and associated services now being demanded by the EEC Commission coming so soon after the additional taxation burden imposed in the 1984 Finance Act through the phasing out of capital allowance and industrial buildings allowances, will sound the death-knell for construction and development activity in many regions and would stop future projects. As a consequence, the already hard-pressed building companies will be forced to lay off workers or face bankruptcy. The redevelopment of sites in depressed inner city or rural locations, which are mainly tenanted by small businesses, would be shelved and it is in these areas in which e positive VAT charge could render site values negative.

In addition if VAT is imposed on rents directly (or indirectly through VAT on construction) the effect on exempt tenants who cannot recover the tax will be disastrous and will give rise to further eut-backs, redundancies and empty derelict properties.

I fail to understand bow the imposition of VAT on building construction services can achieve the fiscal neutrality in the decision making process for my industry that the writer suggests.

The Government has committed its economic recovery to the creaticn of new business and new jobs, and this policy was reiterated by the Prime Minister in ber interview with Sir Alistair Burnett on TV Eye on January 24. The extension of VAT to the building industry at a time when it is recognised that it is just beginning to lift itself out of the recession of recent years is hardly a way of demonstrating the Government's commitment to that policy.

A. G. Long.

87, Wimpole Street, W.1.

Accounting for utilities

From Mr E. Whiting

Sir,—Your article (January 26) asks why the Treasury continues to insist on current cost accounting for publie utilities.

It is not in order to make comparisons with qnoted companies. It is not because replacement cost is a good basis for valuation of reservoirs and sewers. It is not on account of a CCA balance sheet being always available, even wben exposure draft 35 proposes abolition (although it advocates retention of other features of CA). It is not due to the likelihood of CCA being adopted throughout industry when only 9 of the 125 official commentators on ED35 were generally in support of it as an accounting standard.

It is because the CCA figure for return on capital employed is e mystical number (like the money supply) which few people can understand, bnt it looks good. 1 per cent looks terribly low and 1.9 per cent not much of an increase. 15 per cent to 29 per cent, however, is staggering; and a tax increase from £400m to £700m is absolutely appalling.

In my view, the use of return on capital employed for public ntilities is completely misguided. Their assets have a very long life; a realistic depreciation policy is difficult to formulate; their plant requires many years to construct; extra plant may be needed for back-up, where the private sector can risk the occasional failure. Finance should be releted to the viability of capital projects, not to the historic accounts of past years (they are still historical even on a CCA basis).

For a public utility there is no way of deciding what a reasonable return on capital employed should be. No standard of comparison is available. It should provide an adequate service and make an acceptable operating profit. The assets which it already owns, inherited from many many years ago, have very little relevance.

Edwin Whiting.

Manchester Business School,
Booth Street West, Manchester

FINANCIAL TIMES
Monday February 4 1985

Terry Byland on Wall Street

Static picture for TV

THE major U.S. television network companies have been in the news themselves recently, but not, unfortunately, in terms of their stock market performance.

After a strong performance in 1984, when media sector stocks in general did very well with gains of 11 per cent to 15 per cent, against virtually nothing on the Standard & Poor's 400 index, the TV stocks have shown little change since the middle of January when the rest of the market took off to new peaks.

Indeed, both CBS and ABC have shaded lower over the period, which has seen a 5 per cent jump in the industrial stock sectors. Some of the reasons are not hard to identify. The latest statistics on television viewing suggest disappointing progress by the three major networks – ABC, NCB and CBS.

Only those Americans who rise early in the morning seem to be showing increasing interest in television. Prime-time audiences for the big three networks were 2.9 per cent down at the end of December.

This has had its effect on Wall Street's forecasts of profits for 1985 at the major companies. Most analysts are either non-commital or "neutral" on growth prospects for this year. with all agreeing that there will be no repetition of last year's surge in profits as the economic recovery in the U.S. pushed advertising revenues ahead.

At Goldman Sachs, Ms Randi Murray and Ms Dinese Ellsworth expect CBS to increase earnings by only 5.4 per cent this year, against 31 per cent in 1984 and ABC to add 3 per cent against 21 per cent. Network revenue growth will slow from 14 per cent to about 9 per cent,

TV MARKET SHARE %

Primetime	1984	1983
CBS	27	29
ABC	24	27
NBC	26	24

after extracting the effects of the boost from the 1984 Olympics.

Wall Street's stubborn refusal to push the shares higher seems to reflect wider considerations of the outlook for the industry. The national networks are meeting increasing competition from the independent television groups. There are more than 200 independents in the U.S., an increase of 11 per cent in the past 12 months.

They challenge the national networks for advertising in several significant areas, and are likely to increase the pressure. In the first place they can no longer be classed just as local operators. The Association for Independent Television Stations estimates that about one quarter of the money spent on national television advertising goes to independent stations, and yet their local affiliations enable the independents to benefit strongly from local TV advertising, which is growing faster than national advertising.

The tilt towards local advertising reflects shifts in advertising spending which are weighted against the major networks. The fastest growing sources of local advertising are, almost incredibly, the fast-food operators to whom the local market is the target. McDonald's, Pillbury (Burger King), Pepsico (Pizza Hut and Taco Bell) and Wendy's are the four largest advertisers on local television.

Restaurants are the eighth largest advertisers on U.S. television networks – yet do not even figure in the top 25 in the national TV advertising spots.

At the same time some traditional areas of national television advertising are meeting trouble. The beer and wine trade faces a lobby in Washington, reminiscent of that which expugned tobacco advertising from the television screens of America nearly 15 years ago.

All these factors have left the TV network stocks vulnerable. In the case of ABC the stock price has been driven higher by takeover hopes, but these seemed to evaporate a week ago, when the price dipped and huge lines of stock changed hands. At $84 the stock is selling on about 9.5 times earnings, which hardly bears out Wall Street's expectation of slower earnings growth.

ABC admits that its prime-time audience slumped more than 11 per cent last year – the daytime audience fell even more. The viewers seem to have fled to NBC which has the commanding lead in adult prime-time viewing.

Since NBC belongs to RCA, only CBS is available as an alternative for investors in national network TV groups. CBS is still number one in TV network rankings, but is losing viewers in prime-time, daytime and evening at an uncomfortable rate. While its Columbia toys and musical instruments and its record divisions may brighten the picture, it is hard to see how CBS can increase television advertising earnings in a difficult climate.

RETURN TO NORMALITY IS AWAITED WITH RELIEF AND APPREHENSION

Gibraltar's opening night nerves

BY DAVID WHITE IN GIBRALTAR

THE MAIN gates on the Spanish side of the Gibraltar frontier stand ready to swing open tonight on a colony which has become suddenly unsure whether the bad times have ended or are about to begin.

The long-awaited return to normality on the road across the sandy tongue of land that links the Rock with continental Europe is awaited in Gibraltar with a mixture of relief and apprehension.

"People are in a state of excitement," commented Sir Joshua Hassan, the Chief Minister, taking refuge among the regulars of his local bar the morning after a spirited television confrontation on the issue with Mr Joe Bossano, the left-wing opposition leader.

A campaign against allowing Spaniards working rights on the Rock and against giving Spain any say in Gibraltar's future reached its climax last week when Mr Bossano delivered a letter with more than 9,000 signatures – almost a third of the civilian population – to the Convent, seat of the British Governor.

However, the protagonists of the clash will not be there for the opening. Sir Joshua is due in Geneva for the first Anglo-Spanish talks in the framework of last November's breakthrough agreement on Gibraltar. Mr Bossano, satisfied that he has made his point, is boycotting the event. "We do not want any trouble at the frontier," he said.

After more than 20 years of Spanish border restrictions, including 13 of total blockade before Madrid started, allowing Spanish and Gibraltarian pedestrians across two years ago, the opening itself is universally welcomed on both sides of the frontier.

"Everybody agrees on one thing: we all want the border to open," concurred Mr Juan Carlos Perez, a former storekeeper now a member of Mr Bossano's Gibraltar Socialist Labour Party in the colony's tiny House of Assembly. "But why should we have to give anything in return?"

The objections are not only to the prospect of future sovereignty negotiations – which neither the Gibraltar Government nor the opposition wants – but, more immediately, to the "reciprocal rights" which will provide favourable treatment for Spaniards coming to look for jobs.

"Here is a community of 20,000 (the number of British Gibraltarians) extending EEC rights to a community of 37m," said Mr Perez.

A large commuting workforce of Spaniards was withdrawn when the Franco regime cut all links in 1969. The gap was filled with imported Maroccan labour – a quarter of the Rock's workforce today – and new jobs are scarce.

Mr Bossano, 44, a trade unionist, is worried less about his transport and general members in the public sector who can defend their UK-level wages, than the less unionised services and commercial sectors. He fears undercutting by labour from the nearby mainland where unemployment is running at one in three and pay, rents, rates and social benefits are much lower.

Gibraltar businesses – a building materials company is one recent example – are already starting to be advertised for sale in Spain.

Mr Bossano's other worry is that Gibraltarians may move their companies to the cheaper side of the border in order to serve both markets, thereby cutting private sector employment in Gibraltar, reducing the usage of the Rock's high-cost public sector utilities and draining its government revenue.

Underlying the opposition campaign is continuing distrust of Spain (many young Gibraltarians have never been to Spain and have no connections there) compounded by growing distrust of Britain'a intentions towards the Rock. Mr Bossano warns of "rearguard actions" and "a lot of trouble in the next 12 months."

Tradesmen and hoteliers on both sides of the border are optimistic, however. In Gibraltar's Main Street, hi-fi and gift stores such as the Taj Mahal and the Bombay Bazaar have been stocking up for a tourist revival, and the Gibraltar authorities are preparing swingeing cuts in import duties to help them compete.

On the Spanish side, Gibraltar housewives pulling their grocery trollies have already been spending in the order of £150,000 ($168,000) a week since the partial opening of the border.

Neighbouring La Linea, a town which grew up around the Spanish military lines after Britain seized Gibraltar in 1704, suffered worse than Gibraltar from Franco's blockade. Despite heavy emigration it has 7,000 jobless; 14 times as many on Gibraltar.

Sr Antonio Diaz Lara, the mayor, is hoping for a boom in services and supplies. Between 7m and 9m people could be crossing over this year, he claims. The town, which is joining forces with others in the "campo" region including Algeciras, started building a new seafront road to the border two months ago.

Gibraltar residents, who have already been buying property in nearby Sotogrande, can now buy homes in the formerly prohibited zone of La Linea.

Gibraltarians will now be able to drive across for the first time since 1966.

Howe renews pledge, Page 2

$ surge hits hopes of UK rate cut

BY MAX WILKINSON, ECONOMICS CORRESPONDENT, IN LONDON

HOPES on an early cut in UK interest rates were dampened at the weekend after the dollar's surge on Friday to another record level on the New York foreign exchange market.

The surge to a 12-year peak of DM 3.194 was accompanied by a sharp rise in U.S. interest rates. It will reinforce the caution of the British authorities in their desire to allow UK rates to fall from the present 14 per cent.

That is easily the highest level in real terms – after allowing for current inflation – since the second world war. It represents a serious threat to economic recovery and hopes of reversing the rise in unemployment.

Towards the end of last week, wholesale interest rates in London were signalling a cut of 1 to 1½ percentage points in bank base rates. Even before the dollar's late surge, however, the authorities were indicating a very cautious attitude to a cut.

The are reluctant to signal any rapid easing of monetary policy until they are confident that the foreign exchange markets are in a more settled mood, particularly in relation to sterling. They are extremely anxious to avoid having to repeat last Monday's rescue operation, with the risk that interest rates might be pushed even higher than 14 per cent.

For the time being, they have decided to defend sterling at about its present value of $1.12, with the Sterling Index (against a trade-weighted basket of currencies) at around 70 to 72 (1975=100).

Until recently, the Government was prepared to tolerate a gradual decline in sterling if it reflected "external" causes: the strength of the dollar and weakening oil prices. Now it fears that any further fall of the pound might add to inflationary pressures at a critical time in the wage round.

A continued rise in the dollar this week would test the resolve of the five leading industrial powers, announced in Washington last month, to mount a concerted attack on dollar speculation.

Mr Nigel Lawson, the British Chancellor of the Exchequer and Mr Robin Leigh-Pemberton, the Governor of the Bank of England, both emphasised last week that they thought the dollar was greatly overvalued. That view is shared by the authorities in all the leading countries. The foreign exchange markets, however, have yet to see how far they are prepared to back that conviction by spending their dollar reserves.

Britain after 14%, Page 12

China to compete in satellite launching

BY PETER MARSH IN LONDON

CHINA intends to compete with organisations in the U.S. and Western Europe in taking satellites into orbit with rockets, a top Chinese official said in London at the weekend.

Li Xu-e, China's vice-minister of astronautics, said the country hoped to compete in that area "the quicker the better" using its Long March-3 satellite launcher.

Li is the head of a 10-strong delegation of Chinese space engineers and officials who are visiting Britain as part of China's efforts to move closer to Western countries in space technology.

He said that Western satellite companies would be permitted to visit China to inspect launch facilities. He did not think that transport of satellites from the West to Chinese rocket sites would be an insuperable difficulty.

China has launched about 16 satellites with its own rockets, which are a derivative of the country's ballistic missiles for carrying nuclear warheads. The satellites have all been Chinese vehicles used mainly for military surveillance or scientific experiments.

Li said China hoped to have operational satellites for communications and TV broadcasting in orbit within one to three years. The satellites would include craft bought from Western countries as well as those developed by China's industry.

This extension of China's activities would bring competition for the few organisations in the U.S. and Europe that offer commercial launch services.

The U.S. Government sells launches on its fleet of space shuttles, while Arianespace, a Paris company, takes satellites into orbit with Ariane, the rocket developed by West European governments.

Also in the U.S., Transpace Carriers and General Dynamics are attempting to commercialise the Delta, Atlas and Centaur rockets previously operated by the U.S. Government.

The annual world market for commercial launch services is likely to total $1bn to $2bn within a few years, analysts say. According to Arianespace, between 1985 and 1991 250 satellites will enter orbit, mainly for communications.

China has yet to decide on its fees for using rockets or on marketing arrangements, Li said. It is ready to enter into "general discussions" with Western countries with satellites to launch.

The Chinese delegation, which ends its 10-day visit to Britain on Wednesday, last week signed an agreement with the British Government, pledging both countries to cooperation on efforts in space. China has similar agreements with West Germany and Italy.

China to spend $1bn on technology imports, Page 3

Reagan launches drive against overspending

Continued from Page 1

spending itself is running out of control.

Even though Congress last year enacted a budget deficit reduction package totalling $130bn over three years, current Administration forecasts suggest that if the President's budget cutting proposals for tha 1986 fiscal year are not enacted the deficit will rise from $223bn this year to $248bn in 1988, even with the favourable economic assumptions it is making.

On the doubtful assumption that the President's proposed cuts of $239bn over three years are enacted, the budget deficit in 1988 would remain around the $180bn level

Politicians of both parties on Capitol Hill have already suggested that the President's detailed budget cutting plans – which would curb expenditure on politically sensitive welfare programmes for the poor, abolish federal subsidies for mass transit and direct loans from the Export-Import Bank to support U.S. trade, and end many federal grants to the states – are politically unrealistic. They argue that these proposals are dictated largely by the President's decision to exclude expensive programmes such as social security and defence from the spending "freeze" and to rule out a general tax increase.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	S	15	59	Dubrovnik	S	14	57	Malaga	S	17	63	Salzburg	C	2	36
Akrotiri	F	17	63	Faro	S	16	61	Malta	C	15	59	Seoul	S	4	39
Algiers	S	19	66	Florence	F	13	55	Manila	S	33	91	Singapore	F	30	86
Amsterdam	S	7	45	Frankfurt	S	5	41	Miami	S	21	70	Stockholm	F	-14	7
Athens	S	18	64	Funchal	C	18	64	Milan	Fg	3	37	Strasbourg	C	7	45
Bahrain	S	21	70	Geneva	S	11	52	Moscow	Sn	0	32	Sydney	S	27	81
Bangkok	S	33	91	Gibraltar	S	15	59	Munich	F	2	36	Taipei	S	22	72
Barcelona	S	15	59	Guernsey	S	5	41	Nairobi	F	26	79	Tangier	S	17	63
Beirut	S	14	57	Helsinki	Sn	-15	5	Naples	C	13	55	Tehran	—	—	—
Belgrade	F	5	41	H. Kong	C	18	64	New Delhi	S	21	70	Tel Aviv	C	18	64
Berlin	S	-1	30	Innsbruck	F	7	45	New York	C	-6	21	Tenerife	S	21	70
Biarritz	F	9	48	Inverness	C	2	36	Nice	S	14	57	Tokyo	S	10	50
Blackpool	D	8	46	Istanbul	F	11	52	Oporto	S	15	59	Toronto	C	[illegible]	[illegible]
Bordeaux	C	7	45	Jersey	D	8	46	Oslo	S	-6	21	Tunis	S	19	66
Brussels	S	6	43	Jo'burg	S	28	82	Paris	F	11	52	Valencia	S	16	61
Budapest	F	3	37	Las Palmas	S	21	70	Prague	S	-2	28	Venice	C	6	43
B. Aires	S	29	84	Lima	S	26	79	Reykjavik	F	-1	30	Vienna	S	2	36
Cairo	F	18	64	Lisbon	S	11	52	Rio de J'o	S	34	93	Warsaw	Sn	-6	21
Cape Town	S	30	86	Locarno	S	15	59	Rome	C	14	57	Zurich	F	7	45
Caracas	S	27	81	London	C	9	48								
Casablanca	S	18	64	Los Angeles	F	6	43								
Copenhagen	S	-3	27	Luxembourg	F	4	39								
Corfu	S	16	61	Madrid	S	10	50								
Dublin	C	10	50	Majorca	S	13	55								

Readings at mid-day yesterday:
C-Cloudy D-Drizzle F-Fair Fg-Fog R-Rain S-Sun Sl-Sleet Sn-Snow T-Thunder

Buhari holds out hope for civilian rule

Continued from Page 1

vote in a referendum on the type of freedom they would like to see – "Then go ahead and hold an election and form the government."

He had no timetable in mind, however, and emphasised that economic reform was the military Government's priority.

On Nigeria's membership of Opec, the general said that the benefits outweighed the disadvantages. However, the organisation had to be "realistic" and allow "flexibility" for member countries in financial difficulties, such as Nigeria, he said.

Should Britain's North Sea oil prices drop, Nigeria, which earns 95 per cent of its foreign exchange from oil, would follow suit. "We will have to do that to survive," said the general.

He was critical of Britain's handling of the case of Alhaji Dikko, now living in London. An attempt was made last June to kidnap him and return him to Nigeria in a crate marked Diplomatic Baggage in the hold of a Nigerian Airways aircraft, but Customs officers intervened.

The four alleged kidnappers are due to appear in a British court later this month.

Nigerians had been "disappointed" with Britain's reactions at different stages, said the general, and Britain was "not treating Nigeria with the seriousness that Nigerians expect."

Last month Nigeria formally applied for Alhaji Dikko's extradition. Should the request be successful, said General Buhari, he would appear before a military tribunal.

General Buhari was also critical of Britain's Export Credits Guarantee Department, which is playing a leading role among European credit agencies in insisting that Nigeria reach agreement with the IMF before insured trade arrears (over £500m [$560m] in Britain's case) can be rescheduled.

"We expect the ECGD to show more understanding about Nigeria than the rest of our trading partners, and there is no evidence of that."

Efforts to "pull the country out of the economic mess" would take three "very tough" years, the general said. Bunching of commitments on medium-term debt over the period would push up Nigeria's debt service ratio from 44 per cent this year to over 50 per cent by 1987.

"This is a critical situation for us and is a clear indication that we have to be very careful about further debts. But General Buhari gave no indication that the gap between Nigeria and the IMF over loan terms had narrowed.

"We need the IMF, there is no doubt about that" said General Buhari, but he went on to reject two of the fund's main demands: a 50 to 60 per cent devaluation of the naira and a reduction in the subsidy of domestic fuel. Higher prices, including the cost of food, would be the result, he said.

"We will have the riots that seem to signify the arrival of the IMF in most developing countries."

THE LEX COLUMN

The 3i turns a deaf ear

Investors in Industry, or 3i as it now likes to be called, has recently been showing all the signs of a company set for flotation: adopting a fashionably meaningless and ungrammatical name, brightening up its image, taking full-page advertisements in national newspapers and increasing its dividends.

Yet going public is the last thing the company wants. It much prefers the status quo, owned as it is by the Bank of England and the clearing banks.

The Reuters saga immediately springs to mind: A shareholder in need of cash and a notion of public interest unpopular with the institutions that might be expected to buy the deal.

In 3i's case Midland is the keenest to sell, though it may be joined by the others. At the moment the money it has tied up in 3i does not figure in its free equity ratio, which it desperately needs to improve. If it could only pull out, the proceeds would go directly into its capital base.

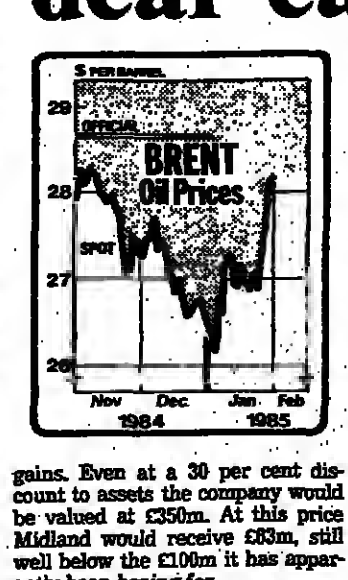
Moreover, whea 3i was set up, the banks were prepared to commit the equity because its business was complementary to theirs. Now 3i competes with them in most of its fields and has become something of an embarrassment.

In an ideal world another shareholder would offer to buy Midland out, and 3i's credit rating, on which it depends for its heavy Euromarket borrowing, would be left intact. That looks like wishful thinking since 3i's return on equity is generally even lower than the banks.'

Any other route – and in particular a public offering – is likely to dent 3i's rating and so raise its cost of funds. Interest payments took a two-thirds slice out of profits last year, so any increase in borrowing costs would hurt earnings, either directly or through 3i becoming less competitive by passing the extra cost on to the customer.

The quality of its earnings is anyway quite low, most come from selling equity stakes – the profits on which are geared to the state of the stock market – and much of the rest from margins on loans of a higher than average risk. If 3i were valued on a p/e of 7 in line with the merchant bank average, last year's earnings would capitalise it at just £200m.

On an asset basis it looks far more attractive and since much of its business resembles an investment trust, perhaps this should determine its price. Net assets in the last accounts were £238.5m and there are about £270m of unrealised



gains. Even at a 30 per cent discount to assets the company would be valued at £350m. At this price Midland would receive £83m, still well below the £100m it has apparently been hoping for.

This figure might all the same be optimistic. The Bank of England would presumably like to ensure, perhaps by incorporating conditions in the terms of sale, that 3i continues to pump long-term capital into British industry. Not only might these constraints put shareholders off – possible buyers might also be chary about 3i's profit potential. It is making money now by selling stakes it acquired cheaply ten years ago when there were few players in the market. Now that competition has increased sellers can bid up the price they charge 3i for their equity. Moreover, 3i's long investment horizons may conflict with the short-term performance demanded by investing institutions.

A second-best solution for 3i might be a direct sale of Midland's holding to an outside institution, while the other banks sat tight. If Midland were to sell, however, it is unlikely that the others would want to stay put. They are not earning an impressive return on their assets, let alone a decent dividend.

Ideally, perhaps, 3i would put its own ideas to the test and arrange itself a management buyout with the aid of friendly institutions. If the banks kept some of their holding, 3i's credit rating would be only partly impaired. The clearers could then gear up on the equity they withdrew – and perhaps lend some of it back to fund tha buyout. Meanwhile, 3i could stem its brain drain by offering higher-flying executives shares of their own.

Oil shares

The pricing of crude oil has begun to resemble an exhausting and bad-tempered baseline slog between Opec and tha British National Oil Corporation, with the ball now bouncing in BNOC's court. The Government has probably lost hope of assisting North Sea crude out of the pricing limelight for the moment. BNOC will have to match Nigeria's $28.65 for the crude it buys, at least for the month just ended, and rely on the recent small rally in spot oil prices to justify it.

This should be good news for the share prices of North Sea producers, even for those sitting on marginal new production. The sector responded smartly to the result of the Opec meeting – with the FT-A Oils Index easily outperforming the market on the two succeeding days – and investors can look forward to excellent sets of results in March.

Amid signs that the worst of the pressure is off the oil price, there is no reason that the shares of the two majors should lack friends. They are trading on their lowest multiples relative to the market for three years. Ex-dividend, and with the arrival (perhaps) of warmer weather, they might look a little less attractive.

As yet there is no hard evidence that the oil companies have reached rock bottom in drawing down their inventories and will have to start restocking from the second quarter. For the year as a whole, most estimates still show demand for Opec oil only slightly above last year's level. Any signs of a weakening in the oil price could remind investors of what sometimes gets lost in the effect of weak sterling on upstream earnings and stock profits: that the sector's price relative to the market shows a close correlation to the dollar price of oil.

Admittedly, investors will buy BP for its generous yield and though there are uncertainties as to how the Shell group will manage its dividend adjustment between the two companies, there is no reason at all to believe that Shell Transport and Trading would cut its 1985 dividend. Meanwhile, U.S. interest in Royal Dutch since the late autumn has apparently helped to drag up Shell T and T, as it begins to look cheap to dollar investors in relation to its sister.

Renewed anxieties about the oil price will, however, tend to discriminate against those exploration and production companies with high gearing, who must watch new projects slide out of reach on the falling return.

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SECTION II – COMPANIES AND MARKETS
FINANCIAL TIMES
Monday February 4 1985

Portuguese budget approval clears way for $400m loan

PORTUGAL'S Parliament last week finally approved the country's controversial 1985 budget, with its record Esc 350bn deficit. This has allowed the Central Bank to begin serious examination of plans for the Republic to raise a $400m loan abroad, writes Peter Montagnon in London.

The operation has begun with Portuguese officials in a particularly buoyant mood. Not only have they been deluged with offers (including one for a $400m floating rate note that was turned down), but the country's most recent borrowing, a $100m equivalent, seven-year credit for Electricidade de Portugal, has been heavily oversubscribed and is to be increased to $190m.

Part of the attraction of this deal clearly reflects its generous interest margins, which start at ⅞ per cent for the first four years and then fall to ¾ per cent. Yet the market response, which elicited no less than $197m in syndication, also demonstrates strong appetite for Portuguese assets.

This does not, however, necessarily make it any easier for Portugal to set the right terms on its new deal, especially as it encourages the temptation to opt for a cheap, new-style facility involving the sale of short-term Euronotes and borrowing through bank advances. Here, the flip side of the coin is that the $500m advance facility for Turkey continues to meet a sluggish response, having attracted commitments totalling only some $450m by the weekend.

Turkey's case highlights plainly the problems facing lesser-rated borrowers in finding banks willing to underwrite one of the new facilities. Although it now appears to be within spitting distance of completing an underwriting group, this will have been done only after tough pressure by the borrower, with relationship banks and with an increase in the facility fee to ⅜ per cent from ¼ per cent.

The problem with high facility fees – and Portugal would certainly have to be generous in this respect – is that they can offset the advantage of borrowing in the short-term paper market.

Elsewhere, renegotiation terms have now been set for the Ecu 450m credit for ENI, Italy's state oil concern, brought to the market last year by Morgan Guaranty. There is to be no change in the maturity, but in exchange for a ⅛ per cent renegotiation fee the margin on both the shorter and longer tranches is to be cut to ⅜ per cent from a split ½–⅝.

This pricing might appear a little tight on the longer tranche of the loan, which still has seven years to run. Moreover, after resistance to one Libor-based renegotiation for Enel, the electricity board, last year, ENI has decided to sweeten its proposal with an unusual option for banks to convert all or part of their share into a floating rate note in which they will act as co-managers.

They will be offered this paper at a yield including commissions of some 24 basis points, which is lower than the loan margin.

In rescheduling news, Brazil made "further substantial progress" in talks with bankers last week on a new deal to defer repayment of about $45.3bn in debt falling due between now and the end of 1991.

EUROMARKET TURNOVER
Turnover ($m)

	Straights	Conv	FRN	Other
Primary Market				
U.S.$	2292.8	000.0	1152.5	28.1
Prev	347.4	000.2	000.0	22.0
Other	1015.8	000.0	000.3	138.5
Prev	291.5	000.0	000.0	19.3
Secondary Market				
U.S.$	16280.9	675.2	11914.0	2424.4
Prev	10191.3	497.2	7849.2	1578.6
Other	2311.6	44.7	258.2	1198.7
Prev	1690.6	33.1	333.9	1026.2

	Cedel	Euroclear	Total
U.S.$	11354.6	23402.3	34756.9
Prev	7787.5	12698.4	20485.9
Other	3124.0	1844.7	4968.7
Prev	2180.5	1214.1	3394.6

Week to Feb 1 '85 Source: AIBD

IBM loses appeal as yield curve flattens

AT LEAST the Eurodollar bond market has had one good month this year. January culminated in the launch by IBM – perhaps the market's favourite borrower – of the first single digit, fixed-rate issue for several years. February got off to a bad start, however, symbolised by IBM's cutting that issue from $300m to $200m, writes Maggie Urry in London.

The uneasiness which had set into the bond market on Thursday, had by Friday become misery. As usual, the rot that set in spread from New York. Sentiment changed quickly from Wednesday when the U.S. long bond reached 105½, and looked set to be going higher. A bigger than expected U.S. Treasury refunding, the money supply figures and a sharply rising Fed funds rate were to blame.

It began to dawn on dealers that the yield curve was going to flatten. But not because long rates were coming down; short rates were going up.

And it was the steepness of the yield curve that had encouraged IBM Credit to launch its three-year deal, extendible to 15 years, with such a low coupon. A couple of weeks earlier, a four-year issue with a 10⅝ per cent coupon had been sold.

This time it was not on. IBM has lost some of the glamour it used to have among the archetypal Swiss investors. It has been coming to the market too often to maintain its scarcity value. And the low coupon, although giving a yield comparison to U.S. Treasury securities less tight than some previous issue, was too much of a shock to the retail investors likely to buy the paper.

The decision to cut the size of the issue came not, it seems, from the lead manager, Salomon Brothers, but from IBM Credit itself.

Even after its size was cut, though, the issue appeared to be in trouble, trading so far outside fees that it could have been mistaken for a Euroyen issue. "If they had to cut it, why not to $100m?" asked one syndicate manager.

IBM was not alone in bringing a tightly priced deal to the market. Other notable borrowers were Mobil, Eastman Kodak and GMAC.

Successes during the week included the J. P. Morgan issue – with an 11¼ per cent coupon – and the Citicorp 12 year deal with a ½ point better coupon and point lower issue price, which was doubled in size.

Floaters could also be under pressure if the yield curve flattens significantly. With a sharply rising yield curve, investors can fund their FRN holdings cheaply. On Friday, with short rates rising, FRNs were sinking.

That did not upset last week's crop of issues, all of which were holding at good levels on Friday. France set a new low rate for FRN yields through a Credit National issue.

The Euroyen market once again displayed its taste for over-indulgence – perhaps a habit learned from the feasting the Eurodollar market sometimes goes in for – we have yet to see the famine in Euroyen, but syndicate managers are starting to sicken. A total of Y126bn of issues last week tested the lead managers to their limit.

Last week the D-Mark market was at last left alone by borrowers, a welcome relief particularly in a week when Lombard rate was increased from 5.5 per cent to 6 per cent. Prices were a little weaker over the week, though by Friday they had stabilised.

The Swiss franc market was also a little unsteady last week, although the issues keep coming.

The Eurosterling market has had a turbulent week. First, a rise in interest rates sent prices crashing. Then hopes of a fall had them moving up again.

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead Manager	Offer yield %
U.S. DOLLARS							
Pasco Corp. §‡	20	2000	15½	3⅛	100	Nikko Secs (Europe)	3.125
Mitsubishi Elec. Corp. §‡	100	2000	15	2⅞	100	Daiwa Europe	2.875
Republicbank Corp. †(a)‡	150	1997	12	⅛	100	Salomon Bros.	–
Oil & Nat. Gas of India †(b)‡	150	1997	12	⅛	100	Merrill Lynch	–
Furukawa Electric ‡	50	1992	7	11	100½	Bqe Paribas	10.894
Mitsui Petrochemical ¶	25	1990	5	(9½)	•	Nomura Int.	•
Security Pacific †(c)‡	250	1997	12	1/16	100	CSFB	–
ANZ Bank ‡	100	1990	5	11¼	100	Morgan Stanley	11.250
Citicorp ‡	200	1997	12	11¾	99¼	Merrill Lynch	11.870
EIB ‡	100	1995	10	11	100½	Société Générale	10.879
Yamato Transport §	40	2000	15	(3)	100	Nikko Secs (Europe)	•
Credit National †(d)‡	500	2000	15	0.05	100	CSFB	–
Mobil Corp ‡	200	1990	5	10¼	100	UBS (Secs)	10.250
Comsat ‡	100	1995	10	11⅝	99¾	CSFB	11.669
Newfoundland ‡	75	1995	10	11⅜	99¾	CCF	11.418
IBM Credit Corp. (e)‡	200	1988	3	9⅝	100	Salomon Bros.	9.625
J.P. Morgan ‡	100	1992	7	11¼	100¼	Morgan Guaranty	11.197
Saskatchewan ‡	100	1992	7	10¾	100	CSFB	10.750
Nippon Steel ‡	150	1992	7	10½	100	Yamaichi Int.	10.500
Kubota ‡	150	1992	7	10¾	100	Nomura Int.	10.750
Kumagai Gumi §	90	2000	15	(3½)	100	Daiwa Europe	•
Shin-Etsu Chem. §	30	2000	15	(3)	100	Yamaichi Int.	•
Nisshin Steel ‡	50	1992	7	10¾	100	Nomura Int.	10.750
First Fed. of Mich. ‡	500	2005	20	0	18½	Bqe Paribas	11.930
GMAC ‡	200	1988	3	10	99.9	Morgan Stanley	10.048
Eastman Kodak ‡	150	1995	10	10⅝	100	UBS (Secs)	10.375
NEW ZEALAND DOLLARS							
N.Z. Breweries	15–25	1991	6	15¾	99¾	Bqe Gutzwiller K.B.	•
N.Z. Breweries	15–25	1992	7	15⅞	99¾	Bqe Gutzwiller K.B.	•
CANADIAN DOLLARS							
Montreal Urban Comm. ‡	75	1995	10	11¾	100¼	Orion Royal Bk.	11.706
AUSTRALIAN DOLLARS							
LTCB ‡	85	1992	7	12¾	101½	LTCB Int.	12.417
D-MARKS							
Chujitsuya Co. ¶‡	70	1989	5	4	100	Bayerische Vereinsbk.	4.000
Jujo Paper Co. ¶‡	120	1991	6	3½	100	WestLB	3.500
Trio-Kenwood ¶‡	55	1990	5	3¾	100	Deutsche Bank	3.750

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Lead Manager	Offer yield %
SWISS FRANCS							
Nat. Patent Dev. Corp. §	60	1995	–	(6(	•	Bqe Gutzwiller, K.B.	•
Chujitsuya Co. ** ¶‡	40	1990	–	3⅝	100	Wirtschafts- und Prbk	3.625
Pasco Corp. §‡	50	1990	–	1⅞	100	Bank Julius Baer	1.875
Santos Finance ‡	130	1995	–	5¾	100	Handelsbank	5.750
Asian Dev. Bank (b)†	50	2000	–	⅛	100	SBC	–
Asian Dev. Bank ‡	100	1997	–	5⅞	100	SBC	5.875
Nihon Cement **	29	1990	–	(5⅝(	100	UBS	•
Mitsui Mining Co. **¶	60	1990	–	(3¾)	•	UBS	•
Elkem **‡	25	1992	–	5¾	100	UBS	5.750
Chugoku Elec. Pwr.	100	1993	–	(5⅝(	•	Credit Suisse	•
EIB **‡	100	1990	–	5½	99¾	UBS	5.559
Settsu Paperboard **	100	1990	–	(5¾(	•	Credit Suisse	•
Mitsui Petrochemical **§	50	1990	–	(2)	•	UBS	•
Settsu Paperboard	100	(1995)	–	•	•	Bank Hofmann	•
Toyobo Co. **¶	50	1990	–	(3⅝(	100	SBC	•
Hisamitsu **§	40	1990	–	(2(	•	SBC	•
Copenhagen Telephone **‡	80	1991	–	5¾	100	SBC	5.750
Sperry Corp. (f)	100	1995	–	(6¾)	•	UBS	•
Pepsico Inc. ‡	130	1995	–	5¼	100	Morgan Gty. (Switz)	5.250
STERLING							
Minebea ‡¶	50	1990	5	8¼	100	Baring Brothers	8.250
Norsk Hydro ‡	50	1991	6	11⅝	100	Hambros Bank	11.625
LIRE							
World Bank ‡	100bn	1992	7	12½	98⅛	Mediobanca	12.894
GUILDERS							
Akzo ‡	150	1990	5	7	100	ABN	7.000
ECUs							
Credit du Nord ‡	40	1991	6	9¾	100	Bqe Paribas	9.750
ABN ‡	100	1992	7	9½	99½	ABN	9.601
YEN							
Procter & Gamble ‡	25bn	1992	7	5⅝	100	Daiwa Europe	5.625
GMAC ‡	25bn	1990	5	5½	100	Nomura Int.	5.500
J.C. Penney ‡	25bn	1992	7	5¾	100	Nikko Secs. (Eur)	5.750
Gabinete da Area **‡	5bn	1995	9	7.3	•	LTCB of Japan	•
FNMA ‡	50bn	1992	7	5⅞	100	Nomura Int.	5.875
Victoria Pub. Auth. ‡	30bn	1995	9	6.7	100	Daiwa Secs.	6.700

* Not yet priced. ‡ Final terms. ** Private placement. § Convertible. † Floating-rate note. ¶ With equity warrants. ⌽ With debt warrants. (a) ⅛ over 3-m Libor. (b) ⅛ over 6-m Libor. (c) 1/16 over 3-m Libor. (d) 5 basis points over 6-m Libor. (e) Extendible to 2000. (f) Dual currency. Note: Yields are calculated on AIBD basis.

INTERNATIONAL CAPITAL MARKETS

US MONEY AND CREDIT

Fed funds rate rise sends prices tumbling

A WEEK that begun in a mood of considerable optimism on the U.S. credit markets ended on a much less buoyant note. The Federal Funds rate shot up sharply as investors began to look anxiously over their shoulders at the Federal Reserve Board, and prices across the range of securities tumbled in response.

The change in mood is shown by the virtual U-turn made by Dr Henry Kaufman, Salomon Brothers' chief economist who only 10 days ago was telling the financial markets that the Fed would "probably decide to ease very soon." By Friday, Dr Kaufman was demonstrating the hardy old forecasters' maxim that if you have to forecast, you should do it as often as possible. The Fed's curbing effort on bank reserves, he wrote in his "Comments on Credit," had resulted last week "in an end to the recent decline in the funds rate, and the probable beginning of a reversal."

U.S. MONEY MARKET RATES (%)

	Last Friday	Change on week	Yield	1 week ago	4 wks ago
Fed Funds (weekly average)	8.64	8.28	8.79	11.77	7.82
Three-month Treasury bills	8.20	7.83	7.82	10.77	7.58
Six-month Treasury bills	8.32	7.91	8.16	10.83	7.87
Three-month prime CDs	8.58	8.10	8.25	11.90	8.06
30-day Commercial Paper	8.40	7.88	8.10	11.38	7.86
90-day Commercial Paper	8.40	7.85	8.20	11.40	7.90

U.S. BOND PRICES AND YIELDS (%)

	Last Friday	1 week ago	4 wks ago	—12-month— High	Low
Seven-year Treasury	101⅛	−1¼	11.25	10.97	11.56
20-year Treasury	101¾	−1¼	11.47	11.25	11.82
30-year Treasury	103½	−1¼	11.33	11.19	11.62
New 10-year "A" Financial	N/A	−1⅜	11.90	11.60	12.30
New "AA" Long utility	N/A	−1	12.38	12.26	12.88
New "AA" Long industrial	N/A	−1	12.13	12.26	12.50

Source: Salomon Bros (estimates).

Money Supply: In the week ended January 21 M1 rose by $4.7bn to $561.8bn.

Suggestions that the Fed might be shifting away from its recently accommodative approach to monetary growth first began to surface in a report of an interview given by Mr Preston Martin, the Fed's vice chairman.

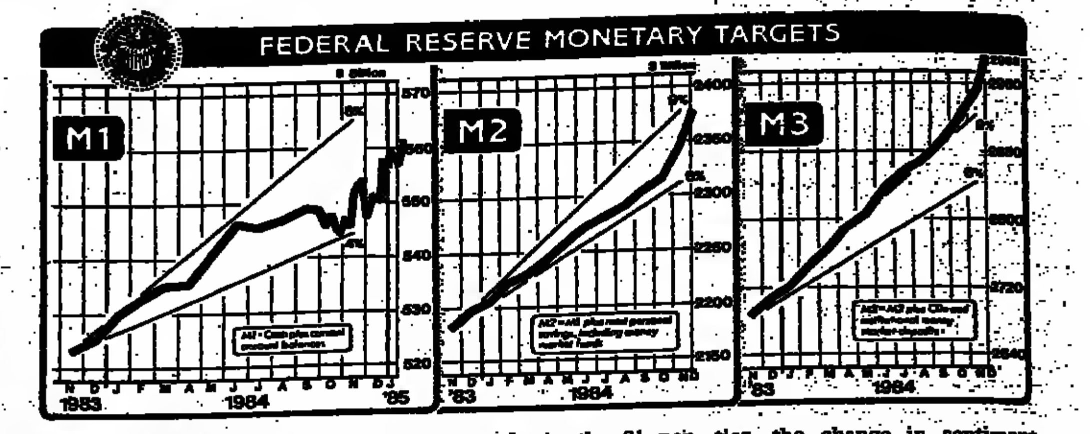
Mr Martin, the Fed governor most closely associated with the accommodative policy, was now said to be leaning towards a tighter credit policy. By the time he had denied the report, the damage had been done; and a big jump in M1, followed by a cautionary speech from Mr Gerald Corrigan, the incoming president of the Federal Reserve Bank of New York, virtually sealed the case for the market.

Mr Corrigan, who is best known at present as a confidante of Mr Paul Volcker, the Fed chairman, said point blank that he believed a strategy of aggressive monetary growth at present was "simply too risky." Emphasising the continuing dangers of inflation despite the present "subdued" inflationary pressures, he added: "There can be no assurance that—even now—aggressively expansionary monetary policies would translate into higher real economic growth rather than higher prices. Let us also not lose sight of the fact that by historical standards the current rate of inflation is by no means low."

Mr Corrigan also added his voice to Mr Vocker's campaign against the Government borrowing requirement in no uncertain terms, telling his audience of New York bankers that "nothing looms larger than the need to reduce the budget deficit"— another point that struck home in the markets this week when the Treasury announced its quarterly funding package.

At $19bn, the programme will be the largest ever launched by the Treasury. It also shook dealers a little by coming out around $1bn more than they had expected, even though the new stripped 30-year bond, which will, in effect, create a zero-coupon security, appeared to be going down well.

On the positive side, says Mr David Jones of Aubrey Lanston, the economic figures showed gains in construction spending and new home sales, along with a strong increase in non-farm payrolls. But a more negative impression emerged from the December decline in factory orders, the overall index of economic indicators, and the increase in the civilian unemployment rate.



The effect of these uncertainties, was to push up short-term rates sharply, propelled by a Federal Funds rate which many analysts expect to trade in the next few weeks in the 8¼ per cent to 8¾ per cent range. By the end of last week, three-month Treasury bills had shot back up to 8.20 per cent, after trading below 8.0 per cent since the middle of December; and six-month bills hit 8.30 per cent, a point last seen at around the same time in December.

At the longer end of maturities, the change in sentiment was not quite so marked, partly, some analysts argue, because the story on inflation is still largely positive. As a result, the yield on the 30-year Treasury long bond rose only to 11.33 per cent, where it stood in the middle of the previous week.

Terry Dodsworth

UK GILTS

Waiting for base rates to fall again

IF THE PANIC was overdone so, probably, was the euphoria which followed.

Last Monday's spectacular collapse in the gilt-edged market and its equally rapid recovery on Wednesday marked one of the most extraordinary episodes in the market's recent history.

Average yields for short-dated stocks, which had started the week at around 11.9 per cent, were within a few hours up to more than 12.5 per cent, and then a day later back more or less to where they started.

Only the authorities' obvious reluctance to see rates fall too quickly was by Friday preventing the banks from cutting 1 to 1½ points from the 14 per cent base rates they had set only four days previously.

But as traders caught their breath at the end of the week—and the fleetest of foot congratulated themselves on the hefty profits made during the market's remarkable turnround—the judgment of most was fairly sombre.

A common starting point is that base rates should come down from 14 per cent once the hurdles of today's official reserve and tomorrow's money supply figures have been jumped.

And since the authorities already knew what the figures contain, it is at least possible that they will give the all-clear before publication — presuming of course the dollar does not surge even higher.

The reserve figures will be eagerly scrutinised for clues to just how much the Bank of England has been spending to defend the pound since Mr Nigel Lawson's conversion to the merits of currency intervention.

Th problem is that although the Bank has probably been spending significantly more than has been apparent in the London markets—notably because of some sizeable dollar sales in New York—the reserve figures may not tell the whole story.

Apart from the usual difficulties in separating the Government's routine transactions from intervention, the gossip in the Treasury is that great care has been taken to ensure that the impact on the reserves of dollar sales will spread over several months.

The money supply figures are even harder to predict, with the usual margins of error accentuated by the Bank's practice of not giving advance notice of the seasonal adjustment for January.

The rough concensus, however, is that growth in sterling M3 should be between ½ and 1 per cent, with buoyant bank lending off-setting in part at least the heavy tax inflows to the Exchequer.

That would push the measure outside its 6 to 10 per cent target range, but on most economists' judgment could hardly justify 14 per cent base rates.

The problem for the gilt-edged market is that short-term interest rates would have to fall fairly rapidly to justify the presen structure of yields for short-dated maturities.

Most brokers believe that current yields are discounting at least a fall to 12 per cent base rates and probably something more.

The dollar's performance on Friday, however, and some lingering doubts over last week's OPEC oil price deal highlight the risks for the authorities in letting rates fall too quickly if Mrs Thatcher's $1.10 target is to be defended.

Mr Lawson's week of penitent speech-making also suggests that the Government will be erring on the side of caution, although it remains unclear how far his proposed tightening of monetary policy is a confidence-building tactic and how far a real switch in policy.

The conclusion drawn by some economists, including Mr Malcolm Roberts at Laing and Cruickshank therefore is that, after a probable fall this week, base rates will stick above 12 per cent for some time.

On that basis, many other brokers believe, scope for advances in the gilt-edged market over the short-term may well be limited to longer-dated maturities, where average yields now stand at around 11.5 per cent for 15-year and 10.8 per cent for 25-year stocks.

In the meantime the authorities will be looking to keep up the funding momentum to ensure that the February money supply figures, published early next month, provide a suitable backdrop to the Budget.

On that score they will have been helped by the recent steady sales of index-linked stocks and the massive take-up of certificates of tax deposit.

If the money supply figures on Tuesday do bring a pleasant surprise, the Bank will be standing by with the £200m of 10¼ per cent Treasury 1989, £200m of 12 per cent Treasury 1995 and £100m of 10¼ Conversion 1999 issued on Wednesday.

Philip Stephens

FT/AIBD INTERNATIONAL BOND SERVICE

U.S. DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AHFC O/S Fin 11¾ 94	100	101	+0⅛	11.57
Amer Saving 12 88 ...	125	101¼	−0⅛	11.54
Amer Saving 12¾ 89...	100	102	0	11.58
Asian Dev Bk 11¼ 93	100	100⅛	+0⅛	11.61
Australia 11⅛ 90	100	104⅝	+0⅛	10.12
Australia 11¾ 95	300	102	+0⅛	11.16
Australia 11¾ 89	100	104⅛	+0⅛	10.96
AIOC 11 89	75	100⅛	−0⅛	10.92
Austria 15½ 88	75	110⅞	−0⅛	11.18
Bk America 12 87	250	102⅛	−0⅛	10.65
Bk Nova Scotia 13¾ 87	100	103⅜	−0⅛	11.27
Bank of Tokyo 13¾ 91	100	107⅛	−0⅛	11.87
Bank of Tokyo 13⅞ 89	100	100⅛	+0½	11.44
Bqe Nat Paris 13½ 89...	150	108⅛	−0⅛	11.58
Bqe Nat Paris 14¾ 90...	250	106⅛	−0⅛	12.42
BFCE 16 88	250	108⅛	−0⅛	10.53
Br Col Hydro 11¾ 93	200	102½	+0⅛	11.28
Br Col Hydro 12¾ 14...	200	103¼	−0⅛	12.39
Br Col Hydro 12¾ 13	250	103⅛	−0⅛	12.39
Britoil Fin 11⅞ 90	125	101½	0	11.53
Canada 10⅞ 88	500	101	−0⅛	10.50
Casio Computer 6⅛ 89	80	111	+0⅛	2.99
CCCE 12⅜ 95	75	103⅛	0	11.87
Citicorp O/S 10 88 ...	300	99⅛	−0⅛	10.20
Citicorp O/S 10⅜ 90...	100	94⅛	0	11.73
Citicorp O/S 11½ 88 ...	100	99⅞	−0⅛	11.85
Citicorp 11¾ 90	100	100	+0⅛	11.71
Citicorp O/S 12 87 ...	200	101⅛	−0⅛	11.10
Citicorp O/S 14 94 ...	100	101	0	13.76
CNCA 13¾ 91	100	108⅛	−0⅛	11.73
Coastfed Int 12⅜ 88...	125	102⅛	−0⅛	11.15
Comp Bancaire 13⅞ 90	75	106⅞	−0⅛	12.12
Comsat 12¼ 91	100	100⅛	0	12.16
Creditanstalt 13¾ 91 ...	100	105½	+0⅛	11.80
Dai-ichi Kangyo 12¼ 90	100	102¾	+0⅛	11.53
Dart & Kraft 7¾ 98 ...	85	98	+0⅛	7.91
Denmark 11⅞ 90	100	100⅞	−0⅛	11.48
Denmark 12¾ 92	150	101⅛	−0⅛	12.47
Denmark 13 92	100	102⅛	−0⅛	12.50
Denmark 13¾ 91	100	105½	0	11.91
Denmark 13⅞ 88	100	106⅛	−0⅛	11.38
Denmark 14 91	100	107⅛	−0⅛	12.29
Du Pont Canada 13½ 91	85	104⅛	−0⅛	12.42
Digital Equip 11⅝ 89...	150	101⅛	−0⅛	11.21
Dutch St Mines 11¾ 91	150	98⅛	+1	11.69
Eksportfinans 11⅞ 90...	100	100⅞	+0⅛	11.35
Elec de France 9⅜ 88...	100	99⅛	−0⅛	9.79
Elec de France 10 88...	125	97⅛	−0⅛	10.82
Elec de France 11¼ 89	100	97⅞	+0⅛	11.52
Elec de France 11¾ 90	100	99⅛	−0⅛	11.35
Elec de France 12¾ 87	150	104⅛	−0⅛	10.76
EEC 10⅜ 90	75	93⅛	+0⅛	11.90
EEC 11 87	350	100⅛	−0⅛	10.57
EEC 11 95	75	97⅛	+0⅛	11.38
EEC 12 93	100	102⅛	+0⅛	11.48
EEC 12 93	50	100⅛	−0⅛	11.84
Euro Inv Bk 11½ 90	200	100⅛	−0⅛	11.36
Euro Inv Bk 11¾ 91	75	97⅛	0	12.27
Euro Inv Bk 11⅞ 93	150	102	−0⅛	11.47
Euro Inv Bk 12¾ 90	100	104⅛	−0⅛	11.22
EDC 9⅛ 88	150	99⅞	−0⅛	9.62
EDC 9⅞ 88	200	98⅛	−0⅛	10.83
EDC 10 88	125	93⅛	0	10.62
EDC 10⅜ 88	100	100⅛	−0⅛	10.59
EDC 11½ 89	150	101⅛	−0⅛	10.76
EDC 11¾ 87	100	102⅛	−0⅛	10.50
EDC 12 89	100	103⅛	−0⅛	10.91
EDC 12¾ 87	100	101⅛	−0⅛	11.82
EEC 13¾ 87	100	105⅞	−0⅛	10.54
Export & Import 13¾ 91	75	106⅛	−1½	11.33
Farm Cred Cpn 11⅝ 89	75	101⅛	+0⅛	11.28
Finland 9½ 86	100	99⅛	−0⅛	9.70
Finland 11½ 88	100	101⅛	−0⅛	10.82
Finland 15⅛ 87	75	108⅛	−0⅛	10.78
Finnish Export 12¾ 87	75	104⅛	−0⅛	10.88
Firstfed Mich 1 13¾ 88	125	103⅛	0	12.08
Florida Fed 12¾ 89...	100	104⅛	+0⅛	11.07
G. E. Credit 96	800	27⅛	0	12.08
General Elec 9⅜ 91 ...	100	95	0	10.83
Gen Elec Cred 11 91	200	100⅛	+0⅛	10.85
Gen Motors Ac 11¾ 90	100	101⅞	−0⅛	10.88
Gen Motors Ac 12⅞ 86	200	101	−0⅛	11.52
Gen Motors Ac 13 88	200	102⅛	+0⅛	10.77
GZB 14 91	100	107	+0⅛	12.31
Giro Vienna 13¾ 91 ...	75	103⅛	−0⅛	12.32
GTE Finance 12 96	75	101⅛	+0⅛	11.71
Gulf Oil 10⅜ 94	100	96⅛	+0⅛	10.90
Gulf Oil 12⅜ 87	100	102⅛	−0⅛	11.11
Holf Air Fin 12¾ 91 ...	100	100⅛	−1	12.16
IBM Credit 13⅞ 87 ...	100	103⅛	−0⅛	12.59
IBM 12⅜ 92	200	107⅛	−0⅛	10.78
IC Industries 11⅛ 98 ...	75	99½	+0⅛	11.94
Ind Bk Japan 11½ 88	125	100⅛	−0⅛	11.33
Ind Bk Japan 11¾ 91	100	101⅛	−0⅛	11.48
Ind Bk Japan 13⅞ 91	125	110	−0⅛	11.54
IADB 12⅜ 92	120	101⅛	0	12.14
Int Bk Rc Dv 11⅜ 90	200	100	−0⅛	11.22
Int Bk Rc Dv 12 93	200	102½	−0⅛	11.50
Int Paper 12 91	75	102⅛	−0⅛	11.34
Int Stand Elec 97	112	22⅛	0	13.05
Int Stand Elec 12 89	75	93⅛	+0⅛	12.26
Itoh 7½ 89	90	0		
ITT 11⅜ 88	125	101⅞	+0⅛	10.90
Japan Airlines 12½ 94	70	106⅛	0	11.02
Japan Dev Bk 11¾ 91	100	103½	−0⅛	11.37
Kyowa Fin HK 12⅞ 90	100	104⅛	−0⅛	11.71
Long Term Cred 10⅜ 90	100	97½	+0⅛	11.37
Long Term Cred 11 90	100	98⅛	−0⅛	11.45
Long Term Cred 11⅞ 89	100	101⅛	−0⅛	11.49
Long Term Cred 12 93	100	103⅛	0	11.34
Long Term Cred 12¾ 90	85	106⅛	−0⅛	11.13
Macy R. H. 11¾ 91 ...	100	102⅛	−0⅛	11.18
McDonalds Fin 11¾ 94	75	100⅛	+0½	11.55
Minebea 6⅛ 88	100	110	+0⅛	3.56
Mitsubishi 5⅜ 88	100	96½	0	6.82
Mitsubishi Cp 12½ 91	100	105⅛	−0⅛	11.16
Mitsub Cse Ch 6⅞ 88	90	90	+0⅛	8.34
Mitsui Eng 7⅛ 89	50	91⅛	−0⅛	6.90
Mitsui Tst Fin 12 91	100	100⅛	−0⅛	11.79
Montreal Urban 12 90...	75	98⅞	−0⅛	12.00
Mgn Guarnty 12¼ 89	150	103	+0⅛	11.28
Mount Isa Fin 13¾ 87	100	105⅛	−0⅛	11.16
Ned Gasunie 11¾ 90...	75	99⅛	+0⅛	11.25
Ned Gasunie 11¾ 91...	75	99	−0⅛	11.47
Newfoundland 13 91 ...	75	104⅛	−0⅛	11.98
Nippon Crd Bk 13⅞ 89	100	107½	+0⅛	11.66
Nippon Tel Tel 11¾ 90	100	101⅞	+0⅛	10.87
Nippon Tel Tel 13⅝ 94	150	108⅛	−2	11.63
Nissho-Iwai 6½ 89	70	89⅛	−0⅛	9.87
Nomura 6⅛ 88	100	112	−0⅛	2.84
Nordic Inv Bk 11⅜ 90	75	101⅛	+0⅛	11.45
Nova Scotia 11¾ 91 ...	100	101⅛	0	11.42
Nova Scotia 11¾ 88 ...	100	101⅛	+0⅛	11.53
Oester Post 12¾ 88...	75	101⅛	−0⅛	11.70
Ohbayashi-Gumi 7⅛ 89	80	119	−0⅛	2.87
Ontario Hydro 11¾ 94...	200	101⅛	+0⅛	11.33
Ontario Hydro 11¾ 90	200	103⅛	0	10.02
Ontario 12⅜ 94	250	106⅛	−0⅛	11.55
Pacific Gas & El 12 91	75	101	+0⅛	11.75
Penney J. C. 11⅞ 90...	100	102	+0⅛	11.35
Penney J. C. 12⅜ 91 ...	100	104⅛	−0⅛	11.90
Philips Petrol 14 89	200	105	−0⅛	12.37
Post-Och Kred 12 90 ...	75	100⅛	−0⅛	11.94
Post-Och Kred 13½ 87	50	104⅛	−0⅛	11.18
Prudential Ins 12⅜ 87	150	104⅛	−0⅛	10.53
Quebec Prov 12¾ 93...	100	103½	+0⅛	11.75
Quebec Prov 12⅞ 94	150	102⅜	+0⅛	11.71
Quebec Prov 13 13 ...	100	104⅛	−0⅞	12.79
RTZ 11⅛ 88	100	97½	+0⅛	12.06
Royal Bk Scot 11¾ 93	75	97⅛	−0⅛	12.28
Sumi Bk Aust 12 91	50	100⅛	+0⅛	11.96
Sanwa Intl Fin 12⅜ 90	80	102⅞	−0⅛	11.32
Saskatchewan 10⅜ 90	125	99⅛	−0⅛	10.87
Saskatchewan 11⅛ 88	100	103⅛	−0⅛	10.90
Saskatchewan 16 02 ...	150	116⅛	+0⅛	11.81
Saskatchewan 16 88 ...	125	114⅛	−0⅛	11.32
Saskatchewan 16¾ 88	100	111⅛	0	12.14
Scot Intl Fin 14¾ 96	50	113⅛	+7⅛	12.02
Sears O/S Fin 88	500	21	−0⅛	12.31
Sears Roebuck 10⅜ 91	150	97⅛	+0⅛	11.03
Sears Roebuck 11¾ 91	150	102⅞	−0⅛	10.95
Sec Pacific 12 92	100	101⅛	+0⅛	11.75
Shearson/Amex 12¾ 94	100	102⅛	+0⅛	11.87
Shell (Canada) 14⅛ 02	125	110⅛	0	12.09
Shell (Canada) 15½ 91	100	113½	+0⅛	12.58
Standard Chart 11⅛ 94	200	100	0	11.49
Statoil 12 88	100	104	−0⅛	10.43
Sumitomo Fin 12¾ 91	150	104⅛	+0⅛	11.89
Sweden 12¾ 89	200	104⅛	−0⅛	10.95
Swedish Export 11⅛ 88	100	100⅞	+0⅛	11.22
Taiyo Kobe 12 90	100	101⅛	0	11.56
Texaco 10⅛ 90	200	96⅛	+0⅛	11.24
Texaco 10⅛ 93	200	96⅛	+0⅛	11.06
Texaco Capital 13⅞ 00	200	107	0	11.37
Texas Instr 11⅞ 91	150	102⅛	+0⅛	11.30
Tokai Asia 12¾ 91	100	102⅛	−0⅛	11.71
Tokyo Electric 6½ 88...	70	93	0	8.57
Tokyo Electric 13¾ 88	100	106⅛	−0⅛	10.91
Toronto-Dom 12⅞ 88 ...	50	102½	−0⅛	11.80
UBS 12⅜ 91	100	103⅛	−0⅛	11.47
Veba 8 93	70	108½	−0⅛	6.55
Warner-Lambert 10⅜ 90	100	98⅛	0	10.62
West LB 11⅞ 90	100	100⅛	+0⅛	11.83
Weyerhaeuser 11½ 90...	88	99⅛	−0½	11.63
Yasuda Trust 12¾ 88 ...	100	102	−0⅛	11.71

FLOATING RATE NOTES	Issued	Price	Chg. on week	C.cpn
Arab Bank Cpn ⅛ 96...	100	100	+0⅛	12⅛
BAII ¾ 91	50	99⅛	+0½	12
Banca Lavoro ⅛ 91	100	100⅛	+0⅛	10 5/16
Ban di Roma ⅛ 92 CU	75	99⅞	0	2⅜
Banco Hispano ⅛ 96 ...	100	99⅞	+0⅛	11 3/16
Bankers Tr NY ⅛ 94 ...	200	100⅛	−0⅛	8 15/16
Bank of Greece ⅛ 94...	150	88⅛	+0⅛	9⅛
Bank Montreal ⅛ 94 £	100	99⅛	0	10⅛
Bank of New York ⅛ 96	75	100	0	11 5/16
Bqe Nat Paris ⅛ 88 ...	400	100⅛	0	8 11/16
Bqe Nat Paris ⅛ 89 ...	250	100⅛	−0⅛	10
Bqe Nat Paris ⅛ 91 ...	125	100⅛	0	12 13/16
Bqe Nat Paris ⅛ 96 ...	250	100⅛	−0⅛	9⅛
Barclays O/S ⅛ 90 ...	100	101	0	9⅞
Barclays O/S ⅛	600	100½	0	10 13/16
BBL ⅛ 89	100	100⅞	0	9⅞
Ban Nat Paris ⅛ 88 ...	400	101⅛	+0⅛	12½
BBL ⅛ 88	100	100½	+0⅛	11 11/16
BFCE ⅛ 87	400	100⅛	−0⅛	9 15/16
BFCE ⅛ 88	125	100⅛	0	10⅞
BFCE ⅛ 88	500	100⅛	−0⅛	9⅛
BFCE ⅛ 99	600	100½	−0⅛	12 3/16
CEPME ⅛ 95 £	100	99⅞	+0⅛	10⅛
Citicorp O/S ⅛ 91 £...	100	98⅛	0	10
Caisse Nat Tel ⅛ 91 ...	250	100⅛	−0⅛	10⅛
Creditanstalt ⅛ 98	150	100⅛	0	12 5/16
Credit Lyonnais ⅛ 98	300	100⅛	−0⅛	9⅞
Cred National ⅛ 95 £	100	99⅞	+0⅛	9⅞
Dai-Ichi Kangyo ⅛ 88	150	100⅛	−0⅛	10 3/16
Denmark ⅛ 90	250	100⅛	0	8 7/16
Denmark ⅛ 92	100	100⅛	−0⅛	12⅛
Denmark ⅛ 99	200	99⅛	0	11 5/16
Denmark ⅛ 90	500	100⅛	−0⅛	11⅛
Dresdner Bank ⅛ 93 ...	400	102½	+1⅛	11⅛
Eldorado Nuke ⅛ 88 ...	100	100⅛	0	12 5/16
Elec de France ⅛ 95 ...	300	100⅛	−0⅛	12⅛
Elec de France ⅛ 99 ...	400	100⅛	0	12⅛
EEC ⅛ 90	250	100⅛	−0⅛	9 3/16
ENEL ⅛ 93 £	100	99⅛	+0½	10⅛
Exterior Intl ⅛ 96	125	100⅛	+0⅛	9 5/16
Ferro del Stat ⅛ 99 ...	250	100⅛	+0⅛	12½
Fiat Finance ⅛ 94	100	88	−0⅛	12
First Aust Bank ⅛ 92...	50	99⅞	+0⅛	8⅞
First Chicago ⅛ 94 ...	100	100⅛	0	10
Ford Motor Cr ⅛ 91 ...	200	99⅛	0	9 15/16
Genfinance ½ 87	100	100⅛	−0⅛	11
Genfinance ½ 92	100	100⅛	0	9 5/16
GZB ⅛ 89	40	100⅛	0	9 13/16
GZB ⅛ 92	90	100⅛	0	8½
Gotabanken ⅛ 94	50	99⅛	0	10⅛
GW O/S Fin ⅛ 94	100	99½	+0⅛	12
Grindlays ⅛ 94	100	100½	0	8⅞
Ind. Bk Japan ⅛ 88	80	101½	0	10⅛
INI Perpet ⅛ 00	150	100	0	11 13/16
Interfirst Tex ⅛ 88	100	96⅛	−0⅛	9⅞
Int Bk Rec Dev ⅛ 88	200	99⅛	−0⅛	8 5/16
Ireland ⅛ 93 £	50	100	0	10 5/16
Ireland ⅛ 94	300	100⅛	+0⅛	9⅛
Italy ½ 99	500	100⅛	−0⅛	12⅛
Kleinwort Ben ⅛ 96 ...	100	100⅛	+0⅛	12 3/16
Lloyds Eurofin ⅛ 92 ...	100	100⅞	0	9 5/16
Malaysia ⅛ 93	850	100⅛	0	12 7/16
Marine Midland ⅛ 94...	125	100⅛	−0⅛	9 7/16
Marine Midland ⅛ 98...	125	99⅞	−0⅛	9 3/16
Mogul Fin ⅛ 94 CU...	100	99½	−0½	9 5/16
Midland Intl ⅛ 89	125	100⅞	−0⅛	9 5/16
Midland Intl ⅛ 91	150	101½	0	11
Midland Intl ½ 99	200	100⅛	0	12⅛
Mitsui Fin ⅛ 89	100	100⅛	0	12 3/16
Morgan Grenfell ⅛ 94	90	99⅛	0	8
Mtg Bk Dnmrk ⅛ 94 £	50	99⅞	−0⅛	10⅛
Nat Bk Canada ½ 91 ...	50	100½	0	9½
Nat West Bank ⅛ 90...	150	100⅛	−0⅛	9 7/16
Nat West Fin ⅛ 91	125	100⅛	0	6 3/16
Nat West Bank ⅛ 92...	100	101⅛	0	10⅞
Nat West Bank ⅛ 94...	100	101⅛	0	10⅛
Nat West Fin ⅛	365	101	0	10⅛
Noste Ey ⅛ 94	100	100⅛	−0⅛	12⅛
New Zealand ⅛ 87	350	100⅛	0	11⅞
NZ Steel Corp ⅛ 92	200	100⅛	−0⅛	9½
Nippon Cred Bk ½ 90	50	100⅛	−0⅛	12⅛
Oester Ln Bk ⅛ 89	100	100⅛	0	11 11/16
Offshore Min ⅛ 89	100	100⅛	−0⅛	9 3/16
Offshore Min ½ 91	150	100½	−0⅛	9 15/16
Oko Bank ½ 92	90	88	−0⅛	12⅛
Pirelli Fin ⅛ 94	50	99⅛	+1⅛	12½
Portugal ⅛ 92	100	89⅛	+0⅛	12
Quebec Hydro ⅛ 94 ...	200	100⅛	0	9 5/16
Queensland Coal ⅛ 96 ...	395	101	0	10 5/16
Queensland Coal ⅛ 88 ...	45	101	+0⅛	10 5/16
Renfe ½ 91	100	100⅛	+0⅛	12⅛
Royal Bk Scot ⅛ 94	75	100⅛	−0⅛	9 3/16
Sanwa Intl ⅛ 92	150	100	0	12⅛
Scandivia Fin ½ 93 ...	70	99	−0⅛	9 5/16
Scot Intl Fin ⅛ 92	100	100⅛	0	11 13/16
BEAT ⅛ 93	100	100⅛	+0⅛	8 5/16
Skopbank ⅛ 94	75	99⅛	−0⅛	9½
SNCF ⅛ 88 £	75	100⅛	+0⅛	12⅛
Soc Generale ⅛ 90 ...	200	100⅛	0	10⅛
Soc Gen (1⅛%) ⅛ 95...	250	101⅛	+0⅛	12⅛
Soc Generale ½ 94	250	100½	0	12 5/16
Spain ⅛ 93	200	100⅛	0	12½
Spain ½ 97	250	100⅛	+0⅛	12⅛
Standard Chart ⅛ 91 ...	100	100⅛	−0⅛	12⅛
Standard Chart ⅛ 94 ...	200	101⅛	+0⅛	12 13/16
Standard Chart ⅛ 91...	100	100⅛	0	10⅛
Standard Chart ⅛ 94 ...	200	100⅛	0	9½
Sumitomo Tst ⅛ 94	100	100⅛	0	12 7/16
Sweden ⅛ 88	650	100⅛	0	12 7/16
Sweden ⅛ 91	150	100⅛	−0⅛	8 11/16
Sweden ⅛ 93	1bn	100⅞	−0⅛	12 3/16
Sweden ⅛ 03	1bn	100⅛	0	10 3/16
Sweden ½ 24	500	100⅛	0	11 13/16
Sweden ⅛	750	100½	−0⅛	9 7/16
Tokai Asia ⅛ 90	150	100⅛	0	9 15/16
Toyo Tst Asia ½ 89 ...	100	100⅛	+0⅛	9 13/16
TVO Power ⅛ 04	100	98⅛	0	8
Union Bank-Norw ⅛ 95	50	99⅛	+1⅛	12 5/16
Wells Fargo ⅛ 96 ...	50	99½	+0⅛	8 5/16
Williams & Glyns ⅛ 91	75	100⅛	−0⅛	13⅛
Yorkshire Int ⅛ 94 £	75	99⅛	0	10⅛

CONVERTIBLE BONDS	Issued	Price	Chg. on week	Prem.
Ajinomoto 3 88	120	92⅛	−1⅛	
Ajinomoto 5⅛ 96	40	123⅞	−1⅛	8.24
Bast Denki 6⅛ 97	16	137⅛	−1⅛	−5.47
Bridgestone Tire 6⅛ 90	70	101⅛	−6½	−1.74
Canon 6⅛ 94	80	274	+1	4.40
Canon 6⅛ 96	50	200	+1⅞	11.64
Canon 7 97	50	229⅛	+0⅛	11.00
BBC Brown Bov 4⅛ 96	57	91⅛	+1½	2.16
Bow Valley 8 95	40	110⅛	−0⅛	72.14
Comsat Intl 7⅛ 98	110	94⅛	+1⅞	33.96
Daiwa Secs 6⅛ 98	80	131⅛	−3⅛	−0.86
Dev Bk Sing 5⅛ 96	70	72	+2	6.28
Eldam 11⅛ 94	100	106⅛	+0⅛	77.17
Elektrowatt 5 96	52	99⅛	+0⅛	18.01
Fanuc 3¾ 98	80	150	+1	2.06
Fujitsu 5 99	180	94⅛	−1⅛	1.20
Intec Inc 3 88	50	90⅛	+1⅛	−4.71
Konishiroku 4 89	50	98⅞	+0⅞	−2.28
Mitsubishi H 4⅛ 89 ...	100	91½	−0⅛	6.33
Moet-Hennessy 7 89 ...	50	102⅛	+0⅛	4.59
Murata Mfg 3½ 99	100	117⅛	+6⅛	0.94
Murata Mfg 3⅛ 00	100	116½	+7⅛	1.72
Nippon Oil 3⅛ 99	50	92⅛	+1⅛	12.18
Ono Pharm 3⅛ 98	00	99	−4	−4.21
Soc Gen Surv 4½ 94 ...	51	90	+1	148.39
Sumitomo Corp 2⅞ 99	70	90	−2	−1.10
Texaco Capital 11⅛ 94	1bn	101⅛	+0⅛	46.88
Texaco Capital 11⅛ 94	500	101⅛	+0⅛	45.18
Usair Finance 7 96	00	108⅛	−0⅛	3.08
Yamanouchi 4 90	00	242⅛	+42⅛	−0.96

YEN STRAIGHTS	Issued	Price	Chg. on week	Yield
Asian Dev Bank 6⅛ 88	15	98½	−0⅛	6.87
Asian Dev Bk 7⅛ 94 ...	15	100⅛	−0⅛	7.30
Asian Dev Bk 8⅛ 91 ...	15	104½	−0⅛	7.31
Asian Dev Bk 8⅛ 92 ...	15	106⅛	−0⅛	7.47
Australia 8½ 91	15	105⅞	−0⅛	7.32
Australia 8⅛ 92	16	105⅛	−0⅛	7.80
Denmark 8⅛ 92	15	103⅞	−0⅛	7.59
Eurofima 6⅛ 89	10	100	0	6.47
Eurofima 7⅛ 94	10	102½	−0⅛	6.87
Eurofima 8⅛ 88	10	104⅛	−0½	7.39
Euro Invest Bk 7⅛ 88...	15	102⅞	−0⅛	6.98
Euro Invest Bk 8⅛ 92...	16	105⅛	−1	7.31
Finland 8⅛ 87	16	103½	−0⅛	6.68
Finland 8⅛ 89	15	104	−0⅛	7.34
IADB 7½ 94	18	101	−0⅛	7.34
IADB 8⅞ 91	15	106⅛	−0⅛	7.58
IADB 7⅛ 89	15	103½	−0⅛	7.33
New Zealand 7⅛ 90 ...	15	100⅛	−0⅛	7.09
New Zealand 7⅛ 88 ...	16	102⅛	−1	6.96
New Zealand 8½ 87 ...	15	103⅛	−0⅛	7.07
Sweden 8½ 90	16	104	−0⅛	7.57
World Bank 7 94	20	98⅞	−0⅛	7.16
World Bank 7⅛ 93 ...	20	101⅛	−0⅛	7.32
Int Bk Rec Dev 8 93...	20	104½	−0⅛	7.24
World Bank 8⅛ 92 ...	20	105⅛	−0⅛	7.30
World Bank 8⅛ 91 ...	20	108⅛	−0⅛	6.90

LUXFR STRAIGHTS	Issued	Price	Chg. on week	Yield
E Coal & Steel 7⅛ 88	500	96½	−0⅛	8.62
E Coal & Steel 7⅛ 88	600	94⅞	0	9.42
E Coal & Steel 10½ 94	1bn	102	−0½	10.07
Euro Invest Bk 10⅛ 94	1bn	104⅛	−0⅛	9.79
Int Bk Rec Dev 10⅛ 88	1bn	105⅛	0	8.90

GUILDER STRAIGHTS	Issued	Price	Chg. on week	Yield
ABN 8 88	200	103⅛	−0⅛	7.06
ABN 7⅛ 89	150	102⅛	−0⅛	7.33
ABN 8⅛ 88	150	105⅞	0	7.04
Amro Bank 8 88	200	103	−0⅛	7.13
Amro Bank 8⅛ 88	100	104⅞	+0⅛	7.18
Bk Mees & Hope 8⅛ 89	100	103⅞	−0⅛	7.12
Beatrice Foods 8⅛ 88 ...	100	103	+2⅛	7.41
C C Rabo 8 89	150	103⅛	−1⅛	7.10
C C Rabo 8 88	100	105⅛	+0⅛	7.27
Denmark 8½ 91	100	103⅞	−0½	7.69
Int Stand Elec 8½ 88	100	104⅛	−0⅛	7.21
Nedd Midd Bank 9 88	100	106	0	7.10
New Zealand 8⅛ 88 ...	100	104⅛	−0⅛	7.12

CANADIAN DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
Br Col Prov 12 93	100	102⅛	−0⅛	11.54
Bqe L'Indosuez 14 91	75	107⅛	+0½	12.22
Br Col Munic 13½ 91 ...	100	106⅞	−0⅛	11.87
Br Col Tele 12⅛ 89	70	101⅞	−0⅛	11.96
Form Cred Corp 12⅛ 90	75	104½	+0⅛	11.10
Int Bk Rec Dev 12⅛ 90	75	106	0	10.90
Montreal City 12½ 91 ...	70	102⅛	−1⅛	11.85
Quebec Hydro 14 91	75	108⅛	−0⅛	12.01

ECU STRAIGHTS	Issued	Price	Chg. on week	Yield
Australia & NZ 10⅛ 91	50	101⅛	−2	10.36
Oesterreich 10⅛ 93	100	103½	−1⅛	9.90
Cred National 11⅛ 91 ...	50	105	−1⅞	10.22
Denmark 10⅛ 91	75	102⅛	−1⅛	10.11
Ebco Intnl 10⅛ 89	55	103⅛	−2⅛	8.85
EEC 10½ 91	60	101⅛	−0⅛	10.12
EEC 11 89	50	104⅛	−1⅛	8.97
EEC 11⅛ 91	50	104⅛	−0⅛	10.17
EEC 11½ 93	70	104½	−1	10.39
Euro Coal & Steel 6 94	60	106⅛	−0½	10.19
Euro Invest Bk 10⅛ 88	50	103⅛	−1⅛	8.54
Euro Invest Bk 10⅛ 94	100	102½	−2⅛	10.19
Euro Invest Bk 11⅛ 92	75	104⅛	−1⅛	10.15
Euro Invest Bk 11⅛ 93	90	105⅞	−2⅛	10.07
Euro Invest Bk 11⅛ 96	50	106	−1	10.46
Gen Finance 11 90	70	103⅛	−1½	10.10
Gte Finance 10⅞ 92	50	104⅛	−1⅛	10.03
Int Bk Rec Dev 10⅞ 88	100	103⅞	−1⅛	0.35
Int Bk Rec Dev 11 93	50	104½	−1⅛	10.19
Italian Treas 11⅛ 90	50	104⅛	−0⅛	10.48
Mogul Finance 11⅛ 94	100	102⅛	−0½	10.75
Nippon Cred Bk 11 91	90	103⅛	−1⅛	10.10
Nordic Inv Bk 8 94	50	106⅛	−0⅛	10.16
Post Och Kred 10⅞ 92	50	100⅛	−2⅛	10.78
Royal Bk Can 10⅛ 89	85	103⅛	−1⅛	9.60
SNCF 10⅞ 94	60	102½	−1	10.38
Swedish Export 11 89	58	103⅛	−0⅛	9.88
West LB 10⅞ 91	50	103½	−1⅛	10.01

AUSTRALIAN DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AIOC 12½ 90	42	99⅛	+0⅛	12.33
G J Coles 13½ 88	25	100½	0	13.28
Nat Aust Bk 12½ 89 ...	40	97⅛	+0⅛	13.38
PIBA 12⅛ 89	50	97½	0	13.21
State Bk NSW 12⅛ 88	40	98½	0	12.70
State Aust 13⅞ 87 ...	24	99⅛	−0⅛	13.56

STERLING STRAIGHTS	Issued	Price	Chg. on week	Yield
Denmark 10⅛ 88	75	97	+0⅛	11.67
Europarat 11⅛ 92	50	97⅛	−0⅛	11.87
EEC 11⅛ 94	50	98⅛	0	11.53
EEC 11⅛ 93	50	100⅛	+0⅛	11.78
Euro Invest Bk 10⅛ 92	75	95⅛	0	11.69
FFI 10⅛ 93	50	95⅞	−0⅛	11.50
Finland 11⅞ 88	50	101½	+0⅛	11.38
IADB 11⅛ 91	60	98	−0⅛	11.83
Int Bk Rec Dev 10⅛ 88	100	98⅛	+0⅛	11.66
Int Stand Elec 11⅛ 88	50	99⅛	−0⅛	11.24
Inv In Indust 11⅛ 91	50	99⅛	−1½	11.66
Ireland 11⅛ 94	50	95⅛	−0⅛	12.24
New Zealand 10⅛ 89 ...	100	98½	+0⅛	11.50
SNCF 11⅛ 94	90	96⅛	+0⅛	11.83
SNCF 11½ 88	30	99⅛	−0⅛	11.57

EQUITY WARRANTS	Expiry date	Price	Chg. on week	Prem.
Commerzbank	31/5/88	45	0	124.28
Ciba-Geigy Int £ ...	1/11/93	255	+15	107.86
C Itoh	20/1/87	43	+0½	
C Itoh DM	4/5/89	12⅛	−0⅛	400.92
Credit Suisse	31/5/88	20	+1½	92.38
Degussa Int DM	2/5/93	132	0	131.01
Deutsche Bank DM	18/6/91	128½	−0⅛	115.84
Dresdner Fin DM	1/9/92	0		
ICI Finance	1/5/90	352⅛	+27½	
IC Industries	15/6/88	13⅞	+0½	195.79
Jusco	12/12/88	88½	−1	
Kayaba Ind	15/2/89	0⅛	0	350.16
Minebea Co	20/2/89	29⅛	+0⅞	
Mitsubishi Ch	20/1/87	30½	0	
Mitsubishi Cp	7/11/88	14⅛	−0⅛	795.93
Mitsui	10/12/87	15⅛	−0⅛	
Nippon Mining	17/3/88	82½	−1⅛	
Nissho Iwai	1/2/89	7⅛	0	894.70
Nomura Sec	31/10/88	30⅛	+0⅛	927.38
Omron Tateisi	31/3/89	13⅛	−0⅛	306.84
Onoda Cement	10/4/89	43⅛	−0⅛	
Philips Gloeil	15/7/88	18	0	198.71
Prudential O/S	15/12/86	100	0	854.88
Secom Comp	15/9/88	10⅛	0	94.37
Seino Trns	17/3/89	11⅛	0	413.20
Siemens West DM	31/5/90	141⅛	+10½	77.78
Sumitomo Cons	24/3/89	43½	−0⅛	
Sumitomo Heavy...	26/2/88	11	0	
Swiss Bk Corp	20/12/88	28	−0⅛	115.85
Tokyo Electric	14/3/89	11	0	315.06
Tokyo Sanyo	8/6/87	139	+1	
Tomy Ind	5/3/87	13½	+1	959.65
Veba Int	15/12/93	48	0	122.98

BOND WARRANTS	Expiry date	Price	Chg. on week	Ex. yield
Aegon Ins 11⅛ 91	14/2/88	14⅛	−0⅛	8.38
ANR Fin 15⅛ 89	15/9/87	30	0	5.52
Coca-Cola 11⅛ 91	28/11/88	31	−0⅛	5.27
Commerzbk 11⅛ 89	17/7/88	55	−1⅛	−0.09
Denmark 11½ 93	15/12/88	17	−1½	8.87
D Norsk Cr 11⅛ 91	1/2/89	10	+1	10.61
Dev Bk Sing 14½ 89	12/9/86	58	+4⅛	0.26
Du Pont 13⅛ 89	25/5/86	50⅛	+2⅛	0.73
Eksportfinas 13⅛ 89	15/9/87	52	+2	0.80
Gen Elec 12⅛ 91	7/8/87	46	−2	4.59
IBM Credit 13 87	19/8/86	46½	−0⅛	−5.28
Inv In Inds 10½ 91	1/12/88	64	0	0.67
M Hanover 13⅛ 87	1/9/85	36½	+15⅛	−1.67
McDonlds F 11⅛ 94	5/1/89	21⅛	−1⅛	7.65
Morgan J.P. 10⅛ 90	16/8/87	13⅛	−0⅛	3.96
Nordic Inv Bk 11 90	15/11/87	10⅛	−1	10.77
Oestr Lnbk 13½ 89	9/8/87	48⅛	−1	1.39
Pnny J C 10⅛ 90	15/10/87	12⅛	−0⅛	7.93
Post-O Kred 11⅛ 90	15/11/87	11	−0⅛	9.40
Ryl Bk Scot 11⅛ 93	15/11/88	18⅛	−7½	9.01
Texaco 10⅛ 93	15/11/87	13⅛	+0⅛	8.81
Texaco Cap 12⅛ 92	1/8/87	44⅛	−0⅛	5.62
Thmsn-Brdt 13⅛ 91	28/8/86	36½	+1	6.27
Weyerhaeuser 11 90	15/11/87	12	−0⅛	3.98
Xerox 13⅛ 87	15/8/85	25⅛	+0⅛	−1.70

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for yen bonds, where it is in billions.

FLOATING RATE NOTES: U.S. dollars unless indicated. Margin above six-month offered rate (‡ three-month; § above mean rate) for U.S. dollars. C.cpn=current coupon.

CONVERTIBLE BONDS: U.S. dollars unless indicated. Prem=percentage premium of the current effective price of buying shares via the bond over the most recent share price.

WARRANTS: Equity warrant prem=exercise premium over current share price. Bond warrant ex yld=exercise yield at current warrant price.

Closing prices on February 1

Data supplied by Association of International Bond Dealers.

CORPORATE FINANCE

Phillips struggles to convince its shareholders

T. BOONE PICKENS, the *bete noire* of the oil patch, says he is surprised that Phillips Petroleum's controversial recapitalisation plan, which his hostile takeover attempt last December precipitated, has been "misunderstood" by the public.

Indeed, Phillips's 218-page proxy statement, which was sent to shareholders over the weekend, notes that the irrepressible Mr Pickens was so upset by the bad press the recapitalisation plan was getting that he wrote to Phillips, offering to "co-operate" in finding an alternative solution to the company's problems, such as a $8.2bn leveraged buyout at $53 per share.

Given that he and his partners had already been promised $470m cash in the hand, assuring them a $80m profit on their 5.7 per cent stake in Phillips whatever happens, the offer (which was refused) was another irritating reminder to Phillips's embattled board that it faces an uphill struggle to convince shareholders that the complex recapitalisation plan is in their best interests.

Many of the company's major institutional shareholders, not to mention the small shareholders, do not understand the plan. If approved on February 22, it will transform a safe, if unexciting, oil company into one whose balance sheet ratios will match those of more speculative players in the game.

It will be a company which could run into serious financial problems if interest rates were to rise, or oil prices to fall, much further. The credit rating agencies have already downgraded Phillips paper because its "flexibility will be severely impaired for the next few years" as it concentrates on generating cash to reduce debt.

Phillips' workforce, which owns just under 10 per cent of the company, will end up owning between 32 and 42 per cent through a newly created Employee Stock Ownership Plan (ESOP). When taken together with planned changes in the voting *rules*, Phillips to all intents and purposes will be protected from unfriendly takeover bids.

Unlike Mr Pickens and his friends, who will get cash for their stake, other shareholders will get $3.5bn of paper, the value of which is uncertain. As a sweetener they have been promised the equivalent of $4.17 per share (pre-recapitalisation) in dividends and income in 1985, compared with Phillips' annual dividend of $2.40.

Phillips' advisers say the deal values its shares at approximately $53. However, the shares are currently trading at under $48 and several analysts believe that they are worth no more than $40 to $45 after the deal. This compares with over $80 per share which several analysts believe the company would be worth if it were liquidated.

Phillips says the recapitalisation plan has been designed to afford its shareholders a "substantial premium" over prevailing market prices for a significant portion of their shares, while at the same time allowing them to retain a major equity interest in a company which "will continue to have a bright future and a leadership role in the oil and gas industry."

Phillips' latest proxy statement challenges the view held in some quarters that the plan will completely emasculate the company. The 1984 net income of $810m, is forecast to decline to $713m in 1985 and $675m next year before recovering sharply in 1987.

Although the company reaffirms its plan to sell off $2bn in assets in the first year and cut its costs by up to 15 per cent, its revenues are forecast to grow by nearly a quarter to $19.4bn in 1987. Capital spending, which averaged $1.8bn a year in the five years to 1983, is scheduled to average $1.4bn a year over the next three years and the company is hoping to limit the decline in its 1bn barrels of crude oil reserves to between 5 and 10 per cent per annum.

The key assumption underlying its post recapitalisation business forecasts is a modest $1 a barrel rise in the price of Arabian light oil to $28 between now and 1987. If the price of oil were to collapse to $20 per barrel, the company would be forced to omit its $2.40 per share dividend.

In the first year, shareholders' funds are forecast to shrink from $6.6bn to $2.6bn, while long-term debt will rise by close to $3bn to $5.7bn. Following the recapitalisation there will be around 100m Phillips common shares outstanding compared with 154.6m currently, and as a result the group's earnings per share of $5.26 in 1984 is forecast to rise steadily to $8.60 by 1987.

Management will have its work cut out over the next fortnight trying to convince the nervous institutions that their investment in Phillips after the recapitalisation is not such a high risk gamble as some oil analysts are arguing.

Phillips' problems are made no easier by the fact that several of Wall Street's best-known arbitrageurs are known to be nursing heavy losses on the investments they made in the company when Mr Pickens was promising them $60 per share. Some are known to be very unhappy about the recapitalisation plan.

It is far from certain that the plan will carry the day. Many of the boys on Wall Street are still hoping that a "White Knight" might appear between now and February 22 to take Phillips off their hands or else that it will be forced into liquidation. Unfortunately for them, their former hero, Mr Pickens, has already cashed in his chips. Someone else will have to take up the running.

William Hall

Scandinavian Bank raises share capital

By David Lascelles, Banking Correspondent

THE FIVE Nordic bank shareholders of Scandinavian Bank, the London consortium, have subscribed an additional £12m, raising its share capital by 23 per cent to £64.4m to boost the bank's capital base.

The bank today reports a 19 per cent increase in pre-tax profits to £12.1m thanks to higher net interest income, and foreign exchange profits.

Another factor was the improved profitability of Banque Scandinave en Suisse, the bank's Swiss subsidiary in

Mr Garrett Bouton, the chief executive, said that Scandinavian Bank, which ranks among the 20 largest in the UK, had to transfer £11.9m from reserves to meet a deferred tax liability arising from the tax changes in last year's budget. He said the bank is planning to boost its investment management and trade finance activities.

Amerada Hess reports $4m loss

BY OUR NEW YORK STAFF

AMERADA HESS, the secretive U.S. oil company headed by the 70-year-old Leon Hess, has reported a $4m fourth quarter loss. This followed the announcement of swingeing cuts in its workforce conditions in refining and marketing.

Full-year earnings fell 17 per cent to $170.5m or $2.01 per share. Earnings from production and exploration rose $14.2m to $285.7m. In the year-ago quarter there was a profit of $57m, or 68 cents a share.

The company, which showed a $108.6m loss on its important refining and marketing operations, has cut the refinery runs at its huge St Croix refinery in the U.S. Virgin Islands, to 195,000 barrels a day. At its peak this refinery was capable of handling over 400,000 barrels a day.

In addition, the company is cutting its workforce by 900, or more than 10 per cent, with the cuts being concentrated in the refining and marketing activities.

Amerada Hess is also cutting its 1985 capital spending by more than a quarter to $650m.

The company says that it will supply its customers by purchasing additional domestic and imported refined petroleum products in the open market as long as it is more economic to purchase such products than to manufacture them.

France launches FFr15bn bond issue

THE FRENCH government is launching today its first state bond issue of the year totalling FFr15bn ($1.54bn), to help finance the budget deficit, Paul Betts writes from Paris.

The provisional state deficit for 1985 amounts to FFr 140.2bn or 3 per cent of gross domestic product. This is the ceiling the government has said it wants to impose on the deficit this year, although it is likely that the deficit could again exceed the 3 per cent of GDP target.

The first state bond issue of the year involves two tranches. The first consists of a seven-year fixed-interest security renewable for a further seven years. The annual coupon has been fixed at 11 per cent. The second tranche involves a 12-year floating rate security with a 10.5 per cent coupon for the first year.

The French government raised FFr 85bn in new long-term issues last year to finance about 60 per cent of its deficit.

Gulf Broadcast sells stations to Taft

By Our New York Staff

TAFT BROADCASTING, the Cincinnati-based media group, is buying a dozen TV and radio stations for $755m in a move which will increase its share of the U.S. TV audience from 9 to 15 per cent.

Taft is buying the five TV and seven radio stations from the Dallas-based Gulf Broadcast, which on Friday announced a plan of complete liquidation. Taft also has an option to purchase Gulf's TV station in Phoenix, Arizona, for $250m cash, and is continuing to negotiate the purchase of Gulf's real estate holdings in the Dallas-Fort Worth area.

Under recently announced changes in Federal Communications Commission regulations, U.S. broadcasting companies will be allowed to own up to 12 TV stations and 12 AM and 12 FM radio stations.

Taft currently owns seven TV stations and 13 radio stations

INTERNATIONAL APPOINTMENTS

Continental Illinois begins to rebuild its board

BY WILLIAM HALL IN NEW YORK

CONTINENTAL ILLINOIS, the big Chicago bank which was rescued by U.S. bank regulators after losing $1.1bn in 1984, has begun to rebuild its board of directors amid signs that international confidence in America's twelfth biggest banking group is returning.

Mr Richard B. Ogilvie, a former Governor of Illinois, and Mr Francis E. Ferguson, the former chairman of Northwestern Mutual Life Insurance Company of Milwaukee, have been elected to the board of Continental Illinois Corporation and its main subsidiary, Continental Illinois National Bank and Trust Company.

The election of the 61-year-old Mr Ogilvie, and the 63-year-old Mr Ferguson, are the first new appointments to the board since the new management team of Mr John Swearingen and Mr Bill Ogden were brought in by U.S. bank regulators last summer. Their job has been made difficult since the Federal Deposit Insurance Corporation, which masterminded the $4.bn bail-out of Continental, has insisted that the bulk of the old Continental board hand in their resignations.

In common with many big banks, Continental Illinois' board of directors has numbered many of Chicago's most prestigeous business leaders, and the new managers have found difficulty in recruiting directors of the same calibre. Continental's old board has been the target of numerous shareholder lawsuits charging negligence and several of the outgoing directors have let it be known that they were not at all happy at their treatment by the FDIC. This is understood to have discouraged some of their would be replacements.

Mr Ogilvie, a Chicago attorney, was elected Governor of Illinois in 1968. He is a partner in the Chicago law firm, Isham, Lincoln & Beale and chairman of its managing council.

Mr Ferguson, who took over as chief executive of Northwestern Mutual in 1968, eventually retired as chairman at the end of January. He continues to sit on the board.

Control Data peripherals chief

BY LOUISE KEHOE IN SAN FRANCISCO

IN A SHAKE-UP of its peripherals company management, CONTROL DATA CORPORATION has replaced Mr Gordon Brown as peripherals president with Mr Lawrence Perlman, formerly president of CDC's financial and business services group. Mr Brown has been given a new post as executive vice president in charge of peripherals marketing and planning.

CDC said technological changes and increased cost competition in the peripherals industry required greater emphasis on marketing and planning. Over the past two years, CDC's peripheral operations have encountered several problems. It plans to offer a "Micro-Winchester" disc drive for personal computers faltered when the company withdrew its product for redesign and cost reduction in 1983. Last year it withdrew from the IBM-compatible large disc drive business after the development of its latest product fell two years behind schedule. Several hundred workers were laid off. Then late last year CDC stopped production of personal computer floppy disc drives at its Oklahoma City plant, moving all production offshore.

Wholesale reshuffle for Hong Kong Electric

BY DAVID DODWELL IN HONG KONG

Mr Simon Murray, who is the chief executive of HUTCHISON WHAMPOA, the Hong Kong trading, properties and shipping group, has been appointed chairman of HONG KONG ELECTRIC, the smaller of Hong Kong's two electricity generating companies.

The appointment, which is part of a wholesale board reshuffle, follows the recent sale by HONGKONG LAND of its controlling 33.8 per cent stake in Hong Kong Electric to Hutchison Whampoa for a price of KH$2.9bn (US$372m).

Hong Kong Electric's new deputy chairman will be Mr George Magnus, who is a board member both of Hutchison, and of its parent, Cheung Kong Holdings. Mr Charles Lee and Mr Canning Fok, both executive directors of Hutchison Whampoa, will also be joining the Hong Kong Electric Board, as will Mr William Shurniak, Hutchison's group treasurer.

Mr John Peacock is to retire as group managing director after 20 years with Electric. He will be succeeded by Mr S. L. Chen Shaolin, who is currently the group general manager.

Promotion for Thierry at BBL

By Paul Cheeseright in Brussels

Mr Jacques Thierry is stepping up from president to chairman at BANQUE BRUXELLES LAMBERT, Belgium's second largest commercial bank.

The appointment, and others consequent upon it, comes into effect a year hence, but the announcements have been made to curtail speculation and instability as the bank seeks a wider international role

Mr John Dils, the deputy of Mr Thierry, who has been in charge of loans and BBL operations in northern Belgium, is stepping up to president.

UK COMPANY NEWS

London listing puts £85m value on Berkeley Tech.

BY WILLIAM DAWKINS

Berkeley Technology, a leading co-ordinator of development capital acting between non-U.S. institutional investors and U.S. high technology companies, is coming to the London Stock Exchange.

Merchant banker Kleinwort, Benson is offering for sale 3.25m Berkeley shares at 150p each, capitalising the whole group at £84.6m. That includes 27.25m new shares to raise $44m (£39m) for the company, with the balance of 6m shares being sold by Mr Arthur Trueger, the chairman, and TR Technology, an investment trust managed by Touche Remnant.

Mr Trueger will raise £5.4m from the sale of his shares, leaving him with o 24.6 per cent stake in the equity, while TR Technology will collect £3.6m, leaving it with a 16.4 per cent interest.

Most of Berkeley's income np till now has been derived from fees from arranging development capital finance. It plans to use the offer money to make investments in its own right, so that it will collect capital gains to complement the fee earnings.

In the year to last October, Berkeley completed 27 transactions involving investments of $100m, o figure it expects to rise to ot least $110m in the current year. The group intends to participate in investments of up to $20m if it beats its $110m target in 1985. Its strategy ls to *arrange investments* in groups which are in their last round of financing before a public flotation or an outright sale.

Berkeley was founded es a financial consultancy in 1977, since when it has arranged $221m of development finance, consisting of 65 developments in *56 companies, only one of which* has gone bankrupt.

Historic profits comparisons are misleading because of a recent restructuring, but proforma profits are forecast to rise from $5.2m after tax to $6m in the current year to December.

That puts the offer for sale priceon a multiple of 15.7, witb the yield ot 4 per cent, based on a forecast gross dividend of 6p.

Applicetions must be received by Thursday, and dealings are expected to open e week later.

● comment

The proposition on offer here is a balance between o merchant bank type operation with a more or less steady stream of fee income and a U.S. high technology development capital fund, with the prospect of collecting *capital gains in exchange for* taking a risk. The letter is a difficult concept to sell just now, in view of the number of investors who have burned their fingers on small U.S. electronic stocks in the past year or so, due to a mixture of earlier over-enthusiasm and industry prob*lems. Bergeley argues that it* has kept relatively clear of the worst hit sectors — low-cost integrated circuits and personal computers — while the high technology shake-out has created valuable buying opportunities outside the stock markets. The $3m insurance policy on the life of Arthur Trueger is a warning of the extent to which Berkeley relies on the skills of one man, though the team behind him looks strong enough. Ali the same, this is no stock for widows and orphans, and the shares seem fully priced at 15.7 times forecast earnings.

BOARD MEETINGS

The following compaeies heve eotified dates of board meetiegs to the Stock Exchange. Such meetings ere usually held for the purposes of considering dividends. Official indicatioes em eot available es to whether the dividende em interims or finels end the subdivisioes shown below em based mainly oe last year's timetable.

TODAY

Interims: Herrburger Brooks, Mezzanine Capital, Textured Jersey.

Finals: Bank Leumi (UK), Bullough.

FUTURE DATES

Interims:	
Ariel Industries	Feb 13
Industrial Fleeece & Inv Corp	Feb 5
London Shop Property	Mar 11
Stockleha	Feb 8
Trade Promotions	Feb 7
Finals:	
Appledore (A. & P.)	Feb 11
Burmatex	Mar 1
Hongkong & Shanghai Bkg	Mar 12
Newmae Tasks	Feb 8
FLM AB	Feb 12
Securicor	Feb 13
Security Services	Feb 13
Webber Electro Components	Feb 8

F.T. Share Information

The following securities bsve been added to the Share Information Service:

GBC Capital (Common shares *and Warrants*) (*Section: Investment Trusts*)

Imatron Inc (Americans)

Jason Mining (Mines—Australians)

Minoil Securities (N.L. (Mines—Australians)

Process Systems, Inc (Electricals).

Edwardes tries to thwart BTR bid

By Charles Batchelor

SHAREHOLDERS IN Dunlop, the debt-laden tyre and rubbur products group, will today receive copies of a two-page letter from the company's chairman, Sir Michael Edwardes, outlining his plans to thwart the £33m take-over bid from BTR, the broadly-based conglomerate.

On Friday, Sir Michael announced that Dunlop's banks had agreed to give the company a breathing space. This will allow it to modify its refinancing package in favour of existing shareholders and to draw up plans *to neutralise the 28 per cent* blocking stake BTR has in its preference shares.

Sir Michael asked in his letter how BTR could seriously question "the relatively limited" dilution of the existing shareholders' stakes in Dunlop resulting from the refinancing. BTR was offering only "e derisory participation" in its own equity to Dunlop shareholders if the bid succeeded, he said.

BTR would edd £1bn worth of sales — one-third of its present turnover — if it acquired Dunlop, but its offer terms would give Dunlop shareholders a stake of only 1 per cent in BTR's equity. The refinancing will require the issue of 800m new ordinary shares in addition to the 144m already in existence.

Sir Michael argued that the BTR offer of nearly 22p in shares or 20p cash was lower than any price at which Dunlop bod traded on the stock market for at least 10 years.

Morgan Grenfell, BTR's merchant bank, described Dunlop's plan to modify the refinancing package as o distraction from the main issue. It said this was en attempt to delay the refinancing beyond the maximum 60-day period for which BTR's offer could remain open.

The bank also defended the use of 14p as a fair price for Dunlop's shares in the BTR offer document. This had been *criticised by Dunlop and* by the takeover panel.

This was the price et which Dunlop's banks had agreed to convert their debt to equity, the price at which institutions were prepared to subscribe for new shares and the price at which Sir Micheel and his fellow directors had originally planned to take np share options, Morgan Grenfell said.

In a separate development, Dunlop said it had almost perfected e tyre making process which made it economic to produce tyres in plant with o weekly capacity of just 10,000 tyres. The present minimum capacity is 35,000 tyres a week.

Dunlop may use the process on its own overseas tyre factory or sell it to other manufacturers. Smaller tyre factories could belp solve the continuing problem of over-capacity in the industry.

S. Jerome

The provision made by S. Jerome & Sons (Holdings) in 1983 to cover the maximum loss which might be incurred following the sale of Davis Security Communications proved more than adequote.

As agreed by the ouditors, the over-provision of £175,000 will be included in the accounts for 1984.

LADBROKE INDEX
Based on FT Index
972-976 (−4)
Tel: 01-427 4411

Lloyds Bank Intl. launches specialised West German trust

BY CLIVE WOLMAN

THE GERMAN Smaller Companies Investment Trust, which is due to be launched this week by Lloyds Bank International, marks a new stage in the development of specialised investment trusts.

Lloyds Bank International *has* underwritten all the shares in the £12.5m trust which will be managed by Lloyds Bank Fund Management and advised by Schroder, Munchmeyer, Hengst Capital, o Frankfurt investment managment subsidiary of Lloyds Bank.

Three-quarters of the 12.5m shares in the trust bave already been placed with pension funds and insurance companies, and the remaining quarter will be offered to private investors, at a price of £1 each. Warrants are attached to the shares on a one-for-five basis and may be exercised once a year from 1986 to 1995 at a price of £1 per share. The application list will open next Thursday.

The investment trust will be the first UK fund to specialise in West German company shares. At present, there is only one authorised investment trust specialising in European markets in general, although there are several unit trusts.

The fund managers do not intend to use their powers to borrows funds nor do they intend to bedge the currency risk. They believe that the Deutschemark is likely to appreciate in value against the pound.

The managers' policy will be to invest in small and medium-sized German companies, including those traded on the over-the-counter market. The portfolio is expected to be fairly concentrated, containing perhaps as little as 20 different stocks. Until o sufficient number of targets are identified amongst *smaller companies, some of the* money raised will be invested in larger West German companies.

● comment

The issue of more investment trust paper may appear a particularly perverse move in view of *the chronic over-supply* of funds and their persistently depressed share prices. The large discounts of share price to net asset value is a fate from which even the specialist trusts covering energy, commodities and Japan have not escaped in recent years. Cynics may recall the spote of European truste which were launched to mark the UK's accession to the Common Market, of which today only one survives. But this trust goes well beyond any previous degree of specialisation and the managers intend specifically to avoid *the large German com*panies that feature in the portfolios of many institutional fund managers. The West German stock and over-the-counter markets have started showing signs of life over the last two years with 32 new company flotations. The ratio of stock market capitalisation to GNP in West Germany remains one of the lowest in the capitalist world, so in theory there will be ample potential for a specialist fund management sub-contractor to the institutions.

Pauls receives approach

Harrisons & Crosfield the plantation, commodity and industrial combine, has approached Pauls, *the manufacturer and distributor* of malt and animal feeds, with o view to taking it over.

The board of Pauls is opposed to the move and yesterday issued a stotement through its financial odvisors Schroders which says it will "strenuously seek to maintain the company's independence."

The board believes that independence is in the best interest of shareholders and employees.

Pauls, formerly Pauls & Whites, has been diversifying oway *from its traditional busi*nesses in an attempt to overcome its recent dull profits performance. In May is acquired Telford Foods which makes muesli, packet soups and sauce mixes for own brand retailing, for £8.5m and has said it will concentrate its *long-term expansion* plans on the flavours, fragrances and human foods businesses

COMPANY NEWS IN BRIEF

Gammon (Hong Kong), owned jointly by Trafalgar House and Jardine Matheson, has agreed to acquire the remaining 50 per cent shareholding in Gammon Building Construction, held by Swire Properties. At the completion of the transaction Gammon (Hong Kong) will own the whole of the capital of Gammon Building.

* * *

Wed Durlacher, the jobbers, is losing Mr Hugh Hughes, its partner in charge of European dealings, to Savory Milln where he will head a new international dealership operation which the firm of stockbrokers is setting up.

Mr Graham Ferguson, a partner of Wedd, said they would be sorry to see Mr Hughes go, but that be was not crucial to the business. "It is o bit of e jungle at the moment, and we have taken people off others too," be said.

* * *

Nova (Jersey) Knit, manufacturer of double-Jersey knit fabric, incurred losses before tax of £122,000, against profits of £52,000, in the firfist balf to end-*September 1984. There is no* interim dividend (1p).

Turnover was £4.17m (£4.44m) generating trading profits of £201,000 (£52,000) before exceptional items. No tax was payable (£13,000).

* * *

Net asset value per ordinary 25p share of Cambrian and General Securities stood at 123.73p at end-December 1984, compared with 67.88p a year earlier, and an adjusted 125.11p at end-September 1984. The corresponding value of its 7½p capital share were 159.32p, 55.38p and 162.65p respectively.

Mr Ivan F. Boesky, the chairman, anticipates a continued favourable investment climate for the company's activities in 1985, and that the expanded capital base will afford additional opportunities for growth.

The capital programme announced in October to raise £19.8m net of equity, and $117m (£103.86m) of long-term debt has been successfully completed.

The directors bave approved the appointment of Baron Elie de Rothschild and Mr Dante C. Fabiani to the board.

SHARE STAKES

Changes in company share stakes announced over the past week include:

A. G. Stanley—Berger Group purchased 250,000 shares and now bolds 23.8 per cent.

Whittington Engineering—Seaforth Investments (a Gibraltarian company) purchased 21,156 ordinary and now bolds 340,450 ordinary (29.9 per cent of voting capital).

Associated Dairies Group—D. M. Gransby, o director, has disposed of 31,000 ordinary shares at 158p and now holds 12,000.

Bronx Engineering—Mr A. I. Cross bas purchased o further 200,000 ordinary, making his total bolding 1,062,500 (8.5 per cent).

Moss Bros—As a result of a recent purchase, the Merchant Navy Officers' Pension Fund is now beneficial owner of 375,000 ordinary sbares (12.39 per cent).

Winterbottom Energy Trust—The Mutual Shares Corporation bas acquired 800,000 ordinary shares and now bolds 5,225,000 shares (21.77 per cent).

Elswick-Hopper—Mr A. L. Turner, a director, has disposed of 250,000 ordinery shares at 10 13/16p and now bolds 4,119,936 shares (10.87 per cent).

Racal—Sir Ernest Harrison, chairman, purchased a total of 40,000 ordinary sbares—25,000 at 208p, and 15,000 ot 224p.

Britannia Arrow Holdings—Mr M. H. Newman, a director, sold 50,000 ordinary shares at 113p.

FINANCIAL TIMES STOCK INDICES

	Feb. 1	Jan. 31	Jan. 30	Jan. 29	Jan. 28	Jan. 25	1984/85 High	1984/85 Low	Since Compilatn High	Since Compilatn Low
Government Secs.	79.87	80.09	79.80	76.40	78.02	70.62	85.77	75.72	127.4	49.18
Fixed Interest	83.44	83.79	83.61	82.48	82.17	84.14	87.48	80.43	150.4	50.53
Ordinary	977.3	986.1	985.7	961.2	977.0	1002.6	1024.6	755.3	1024.5	40.4
Gold Mines	482.0	469.3	465.0	446.1	440.2	430.3	711.7	459.5	734.7	43.5
FT-Act All Share	612.76	614.60	613.69	601.35	608.62	620.80	627.28	464.84	627.21	61.92
FT-SE100	1272.6	1280.5	1277.3	1240.2	1265.6	1088.0	1305.7	986.0	1305.7	986.9

Clerical Medical

15 St. James's Square, SW1Y 4LQ 01-930 5474

Executive Investment Pension Plan

	Bid	Offer	Change
Cash Fund	114.9	121.0	—
Mixed Fund	145.0	152.7	−4.1
Fixed Interest Fund	115.8	121.9	−1.8
UK Equity Fund	158.7	167.1	−8.6
Property Fund	112.3	118.3	+0.1
Overseas Fund	168.4	177.3	+4.9
Index Linked Fund	99.5	104.8	−1.6
Stock Exchange Fund	118.0	124.3	−3.1
North American Fund	111.1	117.0	+2.9
Far East Fund	104.9	110.5	+3.3
Special Situations Fund	105.9	111.5	+0.8

Prices January 30 Unit dealings on Wednesday

Clerical Medical Managed Funds Limited

	Bid	Offer	Change
Cash Fund	141.6	141.6	+0.1
Mixed Fund	210.4	215.7	−5.7
Fixed Interest Fund	161.7	164.4	−2.6
UK Equity Fund	232.1	239.1	−12.2
Property Fund	128.3	134.1	+0.1
Overseas Fund	249.5	262.0	+7.2
Index Linked Fund	112.8	114.5	−1.7
Stock Exchange Fund	121.6	124.6	−3.2

Prices January 30 Unit dealings on Wednesday

Initial unit prices available on request, telephone 0272 290566

RECENT ISSUES

EQUITIES

Issue price	Amount paid up	Latest Renunc. date	1984/85 High	1984/85 Low	Stock	Closing price	+ or −	Net Div.	Times covered	Gross Yield	P.E. Ratio
100	F.P.	—	136	129	Alexandra Work. 10p	134	−5	bg4.5	2.5	4.8	11.9
‡10	F.P.	6/2	13½	10	*B'mnett&Fount'n10p	13	—	bg0.42	1.8	4.6	15.7
$105	F.P.	—	106	105	*Cons. Term. Invs.20p	105	—	ud5.0	2.0	6.7	—
**	F.P.	1/2	25	21	Jap.AssetsTst War'nts	23	—	—	—	—	—
‡55	F.P.	6/2	87	50	*Optometrics(U.S.A.)	81	—	Q2c	—	3.3	—
100	75	1/3	81	77	Pacific Assets Tst.50p	81	+1	—	—	—	—
‡65	F.P.	18/2	96	82	*Spafax Television	87	—	b2.0	2.8	3.3	15.5
‡174	F.P.	1/3	235	200	*Synapse Comp'r. 5p	235	—	bgd1.5	5.1	0.9	28.8
‡95	F.P.	8/3	138	120	*Whitworth'sFood5p	122	—	ud2.0	1.8	2.3	32.5
90	F.P.	21/1	23½	20½	Williams (Rex) Leis.5p	23	—	u0.01	1.4	5.7	15.9

FIXED INTEREST STOCKS

Issue price £	Amount paid up	Latest Renunc. date	1984/85 High	1984/85 Low	Stock	Closing price	+ or −
01.574	£30	10/4	34¼	27	African Dev. Bank 11⅛% Ln. 2010	30¼	—
‖	F.P.	22/2	127	108	F. & C. Eurotrust 5¾% Cnv. Ln. '95	127	+1
§100	F.P.	22/2	118p	108p	FII 7.7% Cnv. Cum. Red. Prf. £1	109p	+1
‡101	£51	15/2	54	50	Felixstowe Dock Prf. Units †	51	—
‖	Nil	—	102¼	99	Greycoat Offices 12.85% Uns. Ln.1999-02	102	−¼
¶¶	F.P.	1/3	98	90	Grovebell 7.5% Cnv. Red. Cum. Pref.	92	—
85.81	£30	19/6	60½	24	Int.-Am. Dev. Bk. 0¼ Ln. 2015	28	—
‖	F.P.	1/2	109	105	Jap. Assets Tst. 4½% Uns. Cnv. Ln.1994	105	—
9	F.P.	1/2	152p	130p	Johnson Matthey 8% Cnv. Cum. Prf.	148p	—
‖	F.P.	18/1	92	80	Lifecare Intl. 8½% Cv. Cum.Red. Prf. 1999	90	—
§99.199	£25	18/3	29⅛	24½	Lon. Shop Prop. 11½%1st Mort. Deb. 2016	25¼	—
¶¶	Nil	18/2	10pm	8pm	Mountleigh 9½% Conv. Unsec. Ln. 2005	10pm	—
—	F.P.	—	100¼	97⅞	Nationwide Bldg. Soc. 10⅛% 13/12/85	98¼	−⅛
—	F.P.	—	99⅜	98⅜	Do. 12% 3/2/86	99⅝	—
¶¶	F.P.	1/2	60p	58p	Simon Engn. 4% Cm. Rd. Prf. '94-96	58p	—
¶¶	F.P.	1/2	64p	63p	Do. 6.4% Cm. Rd. Prf.	64p	—
¶¶	F.P.	1/2	76p	76p	Do. 6.35% Cm. Rd. Prf. '91-96	76p	—
¶¶	F.P.	1/2	86p	86p	Do. 7.75% Cm. Pd. Prf. '92-97	88p	—
01.975	£20	27/6	24⅞	17½	Sweden 11% Ln. 2012	21	−¼
¶¶	F.P.	—	102p	105p	*Tech. for Bus. 7% Cum. Cv. Rd. Pf.	108p	—
¶¶	F.P.	8/1	161	125	Tomkins (F.H.) 0¼% Cnv. Ln. '94	166	+2

"RIGHTS" OFFERS

Issue price	Amount paid up	Latest Renunc. date	1984/85 High	1984/85 Low	Stock	Closing price	+ or −
64	F.P.	8/2	76	60	Bairstow Eves 5p.	73	—
60	F.P.	15/2	138	105	Burgess Prods.	138	—
485	F.P.	8/2	695	620	Carlton Comms.	695	+30
60	F.P.	16/2	87	55	Oura Mill 2½p.	87	+2
88	Nil	—	30pm	28pm	First Castle 10p.	28pm	—
160	Nil	—	14pm	11pm	McCorquodale	14pm	+1
fr.16	Nil	4/2	1pm	¼pm	*Memory Computer 10p.	¼pm	—
24	F.P.	15/2	26	24	*Morris (W.) Fine Arts 20p.	24	—
255	F.P.	8/2	310	263	Pilkington Bros. £1	286	+2
38	Nil	11/2	6½pm	5pm	Premier Cons. 5p	5½pm	−½
650	Nil	—	375pm	160pm	Samuelson Grp. £1	275pm	+15
£11	Nil	—	£11	£10	Shires Inv. Units	£11	—
17	F.P.	1/2	22½	10½	Walker (C. & W.) 15p	21	—
358cts	Nil	—	72pm	60pm	Westpac $A1	72pm	—

Renunciation date usually last day for dealing free of stamp duty. *b* Figures based on prospectus estimates. *d* Dividend rate paid or payable on part of capital, cover based on dividend on full capital. *g* Assumed dividend and yield. *u* Forecast dividend cover based on previous year's earnings. *F* Dividend and yield based on prospectus or other official estimates for 1985. *H* Dividend and yield based on prospectus or other official estimates for 1984. *Q* Gross. *p* Pence unless otherwise indicated. ¶ Issued by tender. ‖ Offered holders of ordinary shares as a "rights." ** Issued by way of capitalisation. §§ Reintroduced. ¶¶ Issued in connection with reorganisation merger or takeover. ■ Allotment letters or fully paid. ‖‖ Introduction. * Unlisted Securities Market. § Placing price. T Figures assumed. †† Official London Listing. ‡‡ Dealt in under Rule 535(3). † Comprising 100 Frf. and one Ptg. share. ‡ Comprising one 11 per cent Cnv.Uns.Ln. stk. and one Warrant.

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year
Anglo Amer. Gold	Mar 6	Final 525 cts
Barclays	Mar 5	Final 12.5
British Vita	Mar 5	Final 3.0
Cadbury Schweppes	Mar 8	Final 3.5
*Cons Gold Fields	Mar 6	Interim 8.5
Consolidated Plantations	Mar 1	Interim 0 sen
Coreh	Mar 6	Final 2.2
*Dalgety	Feb 11	Interim 11.0
*De Beers	Mar 12	Final 25c
Fisons	Mar 0	Final 9.0
Fleet Hldgs	Feb 14	Interim 1.75
General Accident	Feb 29	Final 11.0
General Mining	Mar 9	Final 135cts
*Gold Flds SA	Feb 8	Interim 36cts
HK & Shanghai Bank	Mar 12	Final $0.37
*ICI	Feb 28	Sec Int 14.0
*Imperial Grp	Feb 14	Final 5.08
*Lloyds Bank	Mar 6	Final 17.84
Marchwiel	Feb 22	Final 0.0
Marley	Feb 29	Final 2.0
Midland Bank	Mar 6	Final 14.5
Mitchell Cotts	Mar 1	Interim 1.5
NatWest	Mar 5	Final 19.8
News Ind	Mar 5	Interim 3.5415
Notts Manuf.	Feb 13	Final 4.88
*Peachey Prop.	Feb 19	Interim 2.5
Philips Lamps	Mar 8	Final Fl 1.20
Provident Financial	Mar 8	Final 6.0
Ransome Sims & Jefferies	Mar 5	Final 10.0
*Royal Insce	Mar 4	Final 16.0
*Securicor	Feb 13	Final 1.0
Sime Darby	Mar 3	Interim 4 sen
Unilever	Mar 6	Final 20.29
Vantona Viyella	Feb 7	Final 5.0
Vickers	Feb 27	Final 5.0
*Wagon Finance	Feb 14	Final 1.875

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

Granville & Co. Limited

Member of The National Association of Security Dealers and Investment Managers

27/28 Lovat Lane London EC3R 8EB Telephone 01-621 1212

Over-the-Counter Market

Capitalisatn. £000's	Company	Price	Change on week	Gross div.(p)	Yield %	P/E Actual	P/E Fully taxed
4,866	Ass. Brit. Ind. Ord.	142	−2	6.6	4.4	7.9	9.4
—	Ass. Brit. Ind. CULS	150	−1	10.0	6.6	—	—
3,068	Airsprung Group	53	+1	6.4	12.1	5.0	7.0
925	Armitage & Rhodes	37	−2	2.8	7.6	4.6	7.7
42,383	Bardon Hill	136	−1	3.4	2.5	13.7	22.8
2,640	Bray Technologies	48	−1	6.5	7.3	5.6	0.0
1,970	CCL Ordinary	170	−3	12.0	7.1	—	—
—	CCL 11pc Conv. Pref.	110	−4	15.7	13.6	—	—
5,454	Carborundum Ord.	810	—	5.7	0.7	—	—
—	Carborundum 7.5pc Pf.	86	—	10.7	12.4	—	—
680	Cledico Group	43	−10	—	—	—	—
4,709	Deborah Services	61	−2	0.6	10.8	6.1	9.4
18,066	Frank Horsell	261	+7	—	—	11.3	14.8
	Frank Horsell Pr Ord 87	241	+6	9.6	4.0	6.7	12.7
4,478	Frederick Parker	31	—	4.3	13.3	—	—
941	George Blair	51	+1	—	—	3.4	6.8
1,137	Ind. Precision Castings	28	+1	2.7	9.6	7.7	8.3
14,231	Isis Group	186	−8	15.0	8.0	7.4	19.4
5,416	Jackson Group	104	−2	4.9	4.7	4.8	9.4
38,410	James Burrough	277	−1	13.7	4.9	0.6	5.8
9,224	James Burrough 9pc Pf.	93	+1	12.9	13.9	—	—
8,754	John Howard and Co.	84	+1	8.0	6.0	6.6	12.2
3,116	Linguaphone Ord.	152	+2	—	—	—	—
—	Linguaphone 10.5pc Pf.	95	—	15.0	15.8	—	—
16,441	Mielhouse Holding NV	604	+2	3.8	0.6	43.5	47.6
357	Robert Jenkins	35	+3	5.0	14.3	—	—
1,280	Scruttons "A"	31	+2	5.7	18.4	16.3	3.6
1,977	Torday & Carlisle	61	−2	—	—	8.7	15.4
1,677	Travise Holdings	370	—	4.3	1.1	21.4	21.0
8,925	Uellock Holdings	25	−0½	1.3	6.2	12.1	17.5
11,898	Walter Alexander	93	−1	7.5	8.0	2.2	11.2
6,227	W. S. Yeates	224	−1	17.4	7.7	5.4	10.7

Prices and details of services now available on Prestel, page 48146

BUILDING CONTRACTS

£16m Preston shopping complex

BY JOAN GRAY, CONSTRUCTION CORRESPONDENT

SIR ROBERT McALPINE MANAGEMENT CONTRACTORS has won a £16m design and management contract for Charterhall Properties' Fishergate shopping complex, which is to be developed on the former British Rail goods yards in Preston, Lancashire.

The four-level complex will include an 11,250 sq metre three-storey Debenham's department store, scheduled to open by Christmas, 1988, and a 7,290 sq metre ASDA superstore scheduled to open by Easter 1986.

Car parking for 840 vehicles will be provided with overflow facilities on British Rail's new 517 space car park alongside making a total of 1,350 spaces available at peak times.

The development will include 22 smaller shops, car parking for 840 vehicles, and speciality food court — a central square with a 350 seat dining area surrounded by nine different varieties of fast food outlets.

The Fishergate centre will be built with a reinforced concrete frame clad in brick. The structural design is by the McAlpine Design Group and the architect is The Biggins Sargent Partnership.

The contract—won in competitive tender — brings the company's current shopping centre order book for 1985 to £62m. The company won seven shopping centre contracts in 1984, worth a total of £69m.

Other major shopping centres developed by the company include Brent Cross in London, The Pavement in Chesterfield — where 15 listed Tudor buildings had to be incorporated into the £15m new centre — and King Edwards Court in Windsor.

£5m hotel for Milton Keynes

ROBERT MARRIOTT, Rushden, has been awarded a contract worth over £5m to design and build the first major hotel in Milton Keynes. The scheme is for Trusthouse Forte and consists of a five-torey atrium hotel of reinforced concrete frame construction, providing 163 bedrooms, conference suites, meeting rooms, a restaurant, coffee shop, bars and a health and leisure club. The Post House Hotel will be built at Saxon Gate, central Milton Keynes, as part of the Central Business Exchange (CBX), in the heart of the new city.

★

F.J. CONSTRUCTION has won two contracts in East Anglia. The Property Services Agency has awarded a £3m contract to construct the Custom House at Felixstowe to accommodate HM Customs and Excise personnel who are currently located in various outbuildings within the Felixstowe Dock complex. It comprises a series of octagonal areas, with a reinforced concrete frame structure, clad with glass and provides 65,000 sq ft of offices, on three floors, surmounted by a plant room. British Rail has awarded a £500,000 contract for a 5,500 sq ft single-storey building with traditional brick walls and slate roof for signalling equipment, workshops and staff accommodation. This work forms part of the Anglia East route rationalisation and resignalling programme for electrification of the Liverpool Street to Norwich main line.

★

JOHN LAING CONSTRUCTION has been awarded a contract worth about £940,000 to fit out Carlisle Central Library at The Lanes. Fitting out comprises solid and demountable partitions and doors, floor wall and ceiling finishes, staircases and handrails, mechanical, electrical and plumbing installations, lift and book hoists and built-in fittings.

With a floor area of 2,800 metres, the new library will be at least three times the size of the present library and will house about 150,000 books. It will have three levels and is on a precast portal frame structure with lighting from the column supports to the portal frame. There will be ducts running up from the floor level to the ceiling void on either side of the portal frames. The project is due to be completed in about 45 weeks.

£7m batch for Henry Boot

HENRY BOOT has been awarded contracts worth £7m. As part of the North Terminal development at Gatwick Airport, Henry Boot Southern is to undertake the construction of around 400 metres of road subways and 230 metres of service subways. Work is also to be carried out on surface water drainage and general filling to raise existing ground levels. The 38-week contract is due to start mid-February. Henry Boot Southern has also been ewarded a £2m contract by Vauxhall Motors to carry out concrete work during the construction of a paint shop in Lnton. Suspended reinforced concrete floor slabs are to be cast on four levels with an overall floor area of around 72,000 sq metres. The 20-week contract is programmed for completion in mid June 1985.

A £2.1m contract has been awarded to Henry Boot Northern for the construction of a superstore in Eastgate, Worksop, for the Greater Nottingham Co-operative Society.

Other work includes car park area, service yard, landscaping and boundary walls. The City of Bradford Metropolitan Council has ewarded the £900,000 stage two phase of its refurbishment programme at Odsall Stadium to Henry Boot Northern. Work includes the construction of changing room facilities, standing terraces, seating terraces and toilet accommodation.

Refurbishment sector keeps active

Projects in London and the West Midlands head contracts worth nearly £14m awarded to TARMAC CONSTRUCTION. Tarmac Cubitts, part of Tarmac Construction, has a £3.4m contract for refurbishing and fitting out premises in Victoria Street, London, for Pearl Assurance. At Brierley Hill, West Midlands, Tarmac Construction has a £3m contract for building two retail shopping units, a distributor road, car parking and drainage, for V and P Midlands.

Other Tarmac Construction projects include the design and work o na museum and leisure complex at Kirkleatham, Hull, Cleveland, for Langbaurgh Borough Council (£878,00); an office building and associated external works at Egham, Surrey, for Carlton Real Estates Developments (£670,000) and repairing and modernising 48 homes at Tipton, West Midlands, for Sandwell Borough Council (£496,000).

Tarmac Cubitts contracts include fitting-out a supermarket at Chorlton-cum-Hardy, Manchester, for Safeway Food Stores (£1.1m); a fire station in Glasgow, for Strathclyde Regional Council (£971,000); refurbishing holiday chalets at Minehead, Somerset, for Butlins (£584,000) and modernising 70 flats at Barbican, Plymouth, for Plymouth City Council (£466,000). Tarmac Refurb has a £1m contract from the Home Office, for refurbishing a wing at Stafford Prison.

★

ASHBY AND HORNER has won five contracts worth in excess of £6m. Projects include total refurbishmant of the Royal Norfolk Hotel in South Kensington, London, SW7, and refurbishment of the north yard buildings for Whitbread Brewery in Chiswell Street, London EC1. In Montpelier Square, London SW7, extensive alterations and high quality interior design is to be undertaken o na period property for private clients. In Richmond, Surrey, Ashby and Hornar is adding two floors to tha existing Mortlake telephone exchange and in Wembley, Middlesex, a two-storey light industrial development is to be constructed for Mancos Computers.

★

LOVELL FARROW CONSTRUCTION has won a contract from British Telecom to carry out extensive refurbishment of tha 11-storey office block at 2-12 Gresham Street, EC2. Stated to be a "multi-million" order, British Telecom refused to reveal a more exact figure. The contract is scheduled to be completed in 47 weeks, the first 50 per cent to be carried out in 17 weeks. The works are phased in sections of three or four floors with the rest of tha building remaining in use. Partitions and all existing services are to be stripped out and new ceilings, partitions and floor trunking fitted. The offices, built some 25 years ago, are to be rewired and new heating and air-conditioning will be installed. Lovell Farrow Construction will redecorate throughout; all windows will be refurbished and adapted to suit lowered ceiling levels.

★

Some early designs for Underground tunnelling machines will feature in the modernisation and renovation project for Paddington Underground Station, now being managed by TAYLOR WOODROW MANAGEMENT CONTRACTING under a £3m contract for London Regional Transport. Wall tiles in part of the station will depict early tunnelling shields, including one designed by Sir Marc Isambard Brunel. The £6m project has started and is due for completion in autumn 1986.

An innovative materials handling system, designed and installed by Taylor Woodrow, is being used on the project. Building matarials are sped at night from the site compound at street level to the platform within two minutes in carriages of 0.25 tonne payload capacity on a mono-rack overhead conveyor system. The entrance to the underground station from the British Rail concourse will be extended, with new steps leading down to an area further increased in size by the demolition of British Rail storage space. This larger area will form the new ticket hall which will serve all three underground lines.

★

TROLLOPE & COLLS (CITY) has been awarded e £4m refurbishment contract in Gresham Street, EC2. The building, constructed in the early 1960s by Trollope & Colls, was previously the headquarters of Warburgs. The six-storey building is undergoing complete stripping to provide office accommodation and general banking facilities. New electrical and mechanical services are to be installed. An unusual feature of the building is the front entrance area which will be double-storey height, finished with marble flooring. A banking client will be taking part occupation of the building on completion in August, when the remainder will be available for letting.

INSURANCE

Consolidation moves at Lloyd's

BY JOHN MOORE, CITY CORRESPONDENT

AN UNPRECEDENTED concentration of underwriting capacity is set to take place in the Lloyd's insurance market as brokers sever their shareholding links with the management companies of underwriting units.

There is now talk of the emergence of mega-underwriting agencies—a few, very large agency companies which will control the bulk of the underwriting capacity in the Lloyd's community.

Over the past few months, Sturge Holdings and Merrett Holdings have consolidated their positions as the largest independent underwriting agency groups in Lloyd's and more recently there has been a management buy-out of the underwriting management agency interests of C T Bowring.

The Bowring Lloyd's interests, run by a partnership headed by Mr Murray Lawrence, and the Sturge and Merrett operations collectively, have access to the capacity of more than 4,000 underwriting members out of a total of 23,438.

These statistics need to be treated wth some cauton. Firstly, underwriting members whose affairs are managed by one agent may also participate in the underwriting activites of one of the other agencies mentoned.

Uderwriting managing agencies also introduce members to insurance syndicates managed by rivals. Moreover, the underwriting capacity of individual members may not be fully utilised by their underwriting agent.

Yet even allowing for an element of double counting and the business decisions of the individual agents, the trends suggest the biggest structural realignment to take place in Lloyd's for years.

The changes in structure have been triggered by legislation of 1982 which required that insurance brokers at Lloyd's should sever their shareholding links with managing agency companies by the middle of 1986.

Of a total 298 agencies, some 114 agency companies, managing the affairs of the bulk of the underwriting membershop and accounting for much of the capacity, are affected by the legislation.

Lloyd's own divestment recommendations and guidelines for the market have contributed to the concentration of underwriting power.

It has insisted that the agencies must remain firmly within its jurisdiction and to this end all directors of an agency company must be members and two-thirds of any agency board must be professionals who work in Lloyd's.

This approach is also designed to establish an identity of interest between those that look after an agency's affairs and the members whose affairs they look after.

Lloyd's is sensitive that the interests of outside shareholders in an agency structure may not be identical to those of the membership and produce conflicts, particularly if outsiders play an executive role in the management.

Even so, in order to attract outside capital Lloyd's has permitted non-voting shares to be created in an agency's structure and there is no limitation placed on the ownership of the non-voting shares.

Mr Adam Broadbent, director of merchant bank J. Henry Schroder Wagg, which has carried out the placing of shares for the Merrett agency, said: "The regulations on ownership and control are restrictive to the point where they are likely to affect values negatively.

"Lloyd's could have relied more on disclosure and the free market than they have. I think they see more of a potential conflict than I would between names and shareholders."

He also argues that institutional investors like to invest in size — not less than £50,000 units. They also prefer to invest in listed companies or those with the prospect of a share listing. He estimates the average value of the agencies to be divested is £1m-£1.5m, "which is not enough easily to meet the criteria."

Lloyd's agencies then are set to regroup and reform among themselves and the large egencies are likely to get larger. Other factors are also influencing the concentration of underwriting power.

A capacity shortage threatens Lloyd's. Business volumes, largely transacted in dollars, have risen dramatically thanks to windfall gains once dollar business has been converted back to sterling. Underwriters are reaching their premium income limits and have been forced to curb business. Underwriting membership is not growing at e sufficient rate to provide the capacity to cope with the increased business volumes.

There are suggestions that in order to increase their underwriting capacity swiftly large agencies will seek to acquire other agencies.

With little outside capital coming into the market and commercial pressure building up internally, the divestment proposals could be perpetuating one of the problems they were seeking to resolve.

Concern had been expressed in parliament about Lloyd's possible loss of market identity as insurance brokers managed more of the underwriting capacity. Now with the possibility of the emergence of a few very large agencies, Lloyd's market identity may be under threat once again.

APPOINTMENTS

Nat-West Senior posts

Mr John A. Burns has been appointed deputy general manager of NATIONAL WESTMINSTER BANK's business development division, succeeding Mr F. Peter Tridgell, who retires at the end of February. Mr Burns, deputy regional director, City, since 1982, was previously chief manager, planning and marketing, domestic banking division, and divisional financial controller.

Mr Geoff Bonner has been appointed chief manager of NatWest's access department. Mr Bonner was deputy chief manager and succeeds Mr David Collis on his retirement.

★

Mr Peter Le Cheminant today takes over as director-general of the GENERAL COUNCIL OF BRITISH SHIPPING in place of Mr Patrick Shovelton who is retiring. Mr Le Cheminant was second permanent secretary in charge of the Cabinet Office (management and personnel office) before joining GCBS on January 2.

★

ALLEGHENY INTERNATIONAL industrial division, has appointed Mr Stephen Robinson as director management services, and Mr Ian Barclay, director marketing services. Mr Barclay was director, land and sea systems, for Graviner, a member of the AI international industrial division. Mr Robinson was director of engineering at Graviner and responsible for management information services.

★

The following have been appointed directors of D. C. GARDNER AND CO.: Mr M. W. Allsup, formerly senior manager, Grindlays Bank Group; Mr K. A. Daley, formerly vice president, Bankers Trust Company; Mr D. G. Lewis, formerly district marketing manager, Barclays Bank. Miss Sarah Jane Manton has been appointed company secretary.

★

Mr R. L. Payton and Mr D. T. Potter have been elected to the board of STEWART & HUGHMAN. Mr Payton, previously a director of Baring Bothers & Co, joins as a non-executive director.

★

Mr Martyn Fray has been appointed financial director of VANDERHOFF COMMUNICATIONS. He was director and general manager, TI Desford Tubes.

★

ASTBURY AND MADELEY (HOLDINGS) has made the following board appointments at Austerwood (Holdings) subsidiary companies — British Fittings (Hendon) and British Fittings (Glasgow). Mr Brian W. Stanton, director, Ms Joyce Steventon, director secretary, Mr Brian F. Smith, director, Mr Anthony C. Morris, managing director, and Mr John Wood, deputy managing director. Mr John H. Watson, who joins the board, remains chairman of British Fittings.

★

Mr B. T. Modlock has been appointed e director of PURCELL GRAHAM AND CO.

★

In a restructure Mr R. C. Watts becomes chief executive of the LEWIS AND PEAT GROUP, while Mr D. L. Burt and Mr R. D. Kissin will relinquish their executive responsibilities, as joint managing directors. They will remain directors of Lewis and Peat Holdings and will continue to play an active role in the group's affairs. Joining the board as non-executive directors are Mr Michael Henderson, managing director (chief executive of the Cookson Group); and Mr Michael Kerr-Dineen, a senior executive of the Guinness Peat Group.

★

Mr Ettore Salemi has become general manager of BANCO DI SICILIA, London branch. He succeeds Mr Antonio Sneci who becomes deputy chief maneger of foreign relations division of the Bank in Rome.

★

At the BRITISH CLOTHING INDUSTRY ASSOCIATION, the director is now Mr John R. Wilson, previously deputy director. Ms Elizabeth P. Fox becomes assistant director.

★

The ALL ENGLAND LAWN TENNIS AND CROQUET CLUB (Wimbledon) has appointed Mr Robert McCowen to the new post of marketing director. He was marketing director of Slazenger Rackets and UK marketing director of Racket Sports.

★

TOYOTA (GB) has appointed Mr Simon Phillipson as contract hire and leasing manager. In this new role he will be responsible for packages tailored to tha needs of individual dealers and their customers, and offered through Toyota Finance. He was a director with Ocean Contracts.

★

Mr Jonathan H. Russell has been appointed a director of OCEAN McGREGOR, shipbroking subsidiary of Ocean Transport and Trading. He has been with Ocean McGregor since 1980 and is responsible for the sale and purchase of vessels for the group and its associates as well as external clients.

★

Mr Roger L. Payton has joined the board of MORLAND AND CO

★

Following the merger between the SUN ALLIANCE and PHOENIX ASSURANCE, Mr Derek W. James has been appointed City manager for the group.

★

BRIDGE GRAPHICS, Hull-based repro subsidiary of Watmoughs (Holdings), has appointed Mr John Ellis as deputy managing director.

★

TELEMETRIX, Tewkesbury, has appointed Mr John Hawkeswell to the main board as director of finance and administration. He joined Telemetrix in August 1983.

★

Mr Martin Cawood has been apointed sales director for NORTON TELECOMMUNICATIONS GROUP. He joined the group in September 1983 as sales director for the main operating company, Norton Telecommunications Limited.

★

THE FOREIGN EXCHANGE AND CURRENCY DEPOSIT BROKERS' ASSOCIATION has elected as chairman Mr D. Tullett (Tullett & Tokyo Forex International); deputy chairman Mr P. F. A. Nash (R. P. Martin); and as hon secretary and hon treasurer Mr V. L. Halman (Harlow Meyer Savage).

★

Mr Robert Amstel has been appointed production director of SECOMAK AIR PRODUCTS, e Halma environmental control division subsidiary.

PARLIAMENTARY DIARY

TODAY

Commons: Debate on an Opposition motion on the coal strike. Motion relating to the Immigration Appeals (Procedure) Rules.

Lords: Companies Bill and Business Names Bill, committee stages. Companies Securities (Insider Dealing) Bill, committee on re-commitment. Companies' Consolidation (Consequential Provisions) Bill, committee. Insolvency Bill, committee. Nature Conservation and Amenity Lands (NI) Order, motion for approval.

Select committees: Home Affairs: Sub Committee on Race Relations and Immigration — Refugees. Witness: Richard Luce MP, Foreign Office Minister of State (Room 6, 4.15 pm). Environment—Report and Accounts of the Sports Council. Witness: Sports Council (Room 20, 4.30 pm).

TOMORROW

Commons: Remaining stages of the Films Bill, the Shipbuilding Bill and the Milk (Cessation of Production) Bill. Proceedings on the Town and Country Planning, Compensation) Bill.

Lords: Dangerous Vessels Bill, third reading. Administration of Justice Bill, committee. District Electoral Areas (NI) Order, motion for approval. Food and Environment Protection Bill, third reading.

Select committees: Education, Science and Arts — Achievement in Primary Schools. Witness: National Association for the Teaching of English (Room 16, 10.45 am). Defence — Defence Commitments and Resources: Land Systems. Witness: Ministry of Defence (Room 13, 4.50 pm).

WEDNESDAY

Commons: Motion on the Rate Limitation (Prescribed Maximum) (Precepts) Order. Remaining stages of the Hong Kong Bill.

Lords: Debate on a motion to call attention to the duty of the Government and local authorities to deal with peacetime emergencies and to provide civil defence in case of conventional, biological, chemical or nuclear attack. Unstarred question on whether the Government will now seek to obtain general agreement to revised proposals taking into account the recommendations of the Greenfield Report on Effective Prescribing.

Select committees: Defence—Defence Commitments and Resources. Witness: Field Marshall Sir Edwin Bramall, Chief of the Defence Staff (Room 16, 10.50 am). Social Services—Misuse of Drugs. Witnesses Royal College of Psychiatrists; Royal College of GPs (Room 21, 4.15 pm). Transport—Financing of Public Transport Services. Witness: Rt Hon Nicholas Ridley, Secretary for Transport, and officials (Room 17, 4.15 pm). Employment—Training. Witness: Manpower Services Commission (Room 8, 4.30 pm). Environment—Reports and accounts of the British Board of Agrement and the Sports Council. Witnesses: Department of the Environment officials (Room 20, 4.30 pm). Committee on Private Bills—Unopposed Bills: Bournemouth Borough Council (Lords): Surrey (Lords) (Room 8, 4 pm).

THURSDAY

Commons: Motions relating to the Water Authorities (Return of Assets) Order 1984 and 1985. Ways and Means resolution relating to the GLC grant to London Regional Transport. Motion on the London Regional Transport (Levy) Order.

Lords: Insolvency Bill, committee. Recreation Gardening Bill, Report. Wildlife (Northern Ireland) Order 1985, motion for approval.

Select committee: Agriculture—The accession of Spain and Portugal to the EEC. Witness: Department of Trade and Industry (Room 16, 11 am).

FRIDAY

Commons Private Members Bills.

WEEK'S FINANCIAL DIARY

TODAY

COMPANY MEETINGS—
Inn Leisure Group, Crown Hotel, 10, Broad Street, Worcester, 12.00
Tunstall Telecom, Whitley Lodge, Whitley Bridge, Yorks, 2.00

BOARD MEETINGS—
Finals:
Bank Leumi (UK)
Bulough
Interims:
Herrburger Brooks
Mezzanine Capital
Tadored Jersey

DIVIDEND & INTEREST PAYMENTS—
Bass 9.6p
Bassett Foods 1.68p
Brengreen (Hldgs) 0.7p
British Land 0.75p
Ferranti 0.82p
Irish Ropes 2.1p
Mey & Hassell 1.6p
Moorgate Inv Tst 4p
Murray Income Tst 1.7p
Plaxtons (GB) 3p
Reed Executive 1p
Sweden (Kingdom of) Fltg Rate Nts 1993 $645.57
Tex Abrasives 0.75p
Tussley (Eliza) Grp 1p
Tyn Tees Television A Non-Vtg 7.5p

TOMORROW

COMPANY MEETINGS—
Fishguard & Rosslare Railways & Harbours, 163-203 Eversholt Street, NW, 12.15
Western Selection, 23-35, City Road, EC, 12.00

BOARD MEETINGS—
Finals:
Bluemel Bros.
English & New York Trust
Gaunt (Rowland)
Newman Tonks
Interims:
Fashion & General Investment
Gold Fields of South Africa
Howard Shuttering
Industrial Finance & Investment Corp.
M. L. Holdings
R. F. A.
Reardon Smith
Unitech

DIVIDEND & INTEREST PAYMENTS—
Anchor Intnl Fund 0.0887cts
British Tar Products 1.2p
De Beers Cons Mines 40pcCumPf (Reg) 43.29834p. Do 40pcCumPf (Br) 43.29834p. Do 8pcCum2ndPf 1.73193p
Gold Fields of South Africa CnvRedCumPf 145cts
Inn Leisure Grp 0.42p
Samuel (H.) 1p. Do A NonVtg 1p
Scottish Northern Inv Tst 4¼pcPf 1.5625p

WEDNESDAY FEBRUARY 6

COMPANY MEETINGS—
Higsons Brewery, Holiday Inn, Paradise Street, Liverpool, 12.00
Johnson & Firth Brown, Royal Victoria Hotel, Sheffield, 11.00

BOARD MEETINGS—
Finals:
Fleming American Investment Trust
Ford (Martin)
Webber Electro Components
Interims:
Chrisoe-Tyler
Mrinir Estates
Scottish & Mercantile Investment
Stocklake
TR City of London Trust

DIVIDEND & INTEREST PAYMENTS—
Banco de Bogota Finance Corp Gtd Fltg Rates Nts 1985 $63.57
Bank of Tokyo (Curacao) Hldgs Gtd Fltg Rate Nts Feb 1991 $310.25
British American & Gen Tst 4pcCnvLn 1990-95 2pc
Cons Co Bultfontein Mine 1.94842p
Greycoat City Offices 0.75p
Griqualand West Diamond Mining 6.87616p
Hapoalim Intnl NV Gtd Fltg Rate Nts 1986 $638.7
ICI 10¾pcLn 1991-96 5.375pc
Intnl Distillers & Vintners 8½pcLn 1990-1995 8.25pc
Marsh & McLennan 80cts
Steinburg Grp 1p
Webster (Samuel) & Sons 3.625pc
Whitbread & Co 7¾pcDb 1989-94 3.875pc

THURSDAY FEBRUARY 7

COMPANY MEETINGS—
AE, Savoy Hotel, Strand, WC, 12.00
Burns-Anderson, Midland Hotel, Manchester, 12.00
Greenall Whitley, Lord Daresbury Hotel, Daresbury, Cheshire, 12.00

BOARD MEETINGS—
Finals:
Aaronson Bros.
Goode Durrant & Murray
Leisuretime International
Interims:
Abingworth
Flextech
Mid Wynd International Investment Trust
Ranson (William)
Trade Promotions

DIVIDEND & INTEREST PAYMENTS—
Baynes (Charles) 1.78p
Burroughs Corp 65cts
Continental & Industrial Tst 8p
Higsons Brewery 3.18p
Hinton (Amos) & Sons 8pcLn 3.125pc
Maple 10½pcLn 1998-2002 5.25pc
Perstorp AB SKr 3.3
Pilkington Bros 5p
Rexmore 0.675p
Southern Rhodesia 4½pc 1987-92 (Unassented) 2.25pc. Do 4½pc 1987-92 (Assented) 2.25pc
Thermal Scientific 1p

FRIDAY FEBRUARY 8

COMPANY MEETINGS—
Aspinall Hldgs, London Hilton, Park Lane, W, 11.45

BOARD MEETINGS—
Finals:
TSL Thermal Syndicate
Wood (S. W.)
Interims:
Heath (Samuel)
Knott (John)
Second Alliance Trust
Wolverhampton Steam Laundry

DIVIDEND & INTEREST PAYMENTS—
Akroyd & Smithers 12.5p
American Express 32cts
Banco Nacional De Mexico SA Fltg Rate Subord Nts 1992 $316.25
British Build & Eng Appliances 1.38p
Brown (N.) Inv 3p
Cray Electronics 0.736p
Dixon (David) Grp 2.5p
Edbro (Hldgs) 2p
Eldridge, Pope A 2.8p
Electric & Gen Inv 1.55p
Greenall Whitley 2.5365p. Do A 0.5073p
Hanson Tst 3.25p
London Merchant Secs 0.7p
Middle Witwatersrand 18.340786p
Monk (A.) 2p
Phoenix Timber Grp 1.5p
RHP Grp 1.75p
Reed Intnl 7¼pcDb 1990-95 3.625pc. Do 10pcLn 2004-09 5pc
Security Pacific Corp 30.5cts
Wight Collins Rutherford Scott 0.75p
Zandpan Gold Mining 2.241652p

SUNDAY FEBRUARY 10

DIVIDEND & INTEREST PAYMENTS—
Conversion 9¾pc 2001 4.875pc
Treasury 10¼pcCnvStk 1987 5.125pc

A copy of this Offer for Sale document, which comprises listing particulars with regard to German Smaller Companies Investment Trust plc ("the Company") given in compliance with The Stock Exchange (Listing) Regulations 1984, has been delivered to the Registrar of Companies for registration in accordance with those regulations. Application has been made to the Council of The Stock Exchange for admission to the Official List of all the ordinary shares issued and now being issued and warrants of the Company. The Directors of the Company, whose names appear below, are the persons responsible for the information contained in this document. To the best of the knowledge and belief of the Directors (who have taken all reasonable care to ensure that such is the case) the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information. The Directors accept responsibility accordingly. The application list for the ordinary shares (with warrants attached) now being offered for sale will open at 10 a.m. on Thursday, 7th February, 1985 and may be closed at any time thereafter. The procedure for application and a detachable application form are set out at the end of this document.

GERMAN SMALLER COMPANIES INVESTMENT TRUST plc

(Registered in England under the Companies Acts 1948 to 1983 number 1879372)

Offer for Sale by Lloyds Bank International Limited

of 12,500,000 ordinary shares of 50p each (with warrants attached) at 100p per share payable in full on application

Share Capital

Authorised		Issued and now being issued
£		£
7,500,000	in ordinary shares of 50p each	6,250,000

The ordinary shares now being offered for sale rank in full for all dividends hereafter declared or paid on the ordinary share capital of the Company. The Company has created warrants carrying rights, exercisable on 31st August in any of the years 1986 to 1995 inclusive, to subscribe for a total of 2,500,000 further ordinary shares at 100p per share.

Underwriting

The Offer for Sale has been fully underwritten by Lloyds Bank International Limited. The Directors are aware of intended applications from sub-underwriters for a total of 9,375,000 ordinary shares (with warrants attached), representing 75 per cent. of the issued share capital and warrants of the Company following the Offer for Sale, which applications will be accepted in full.

Officers and Advisers

Directors
Arthur John Davis, RD, *Chairman*
Bruce Trevor Ackerman
Manfred Emcke (German)
Klaus Kaposi (Austrian)
Harry Cowderoy Partridge
all of 40-66 Queen Victoria Street,
London EC4P 4EL

Secretary and Registered Office
Robert Brewer Hobson
40-66 Queen Victoria Street,
London EC4P 4EL

Investment Manager
Lloyds Bank Fund Management Limited
40-66 Queen Victoria Street,
London EC4P 4EL

Investment Adviser
Schröder, Münchmeyer, Hengst Capital GmbH
Friedensstrasse 6-10, Postfach 4387, 6000 Frankfurt,
West Germany

Issuing House
Lloyds Bank International Limited
40-66 Queen Victoria Street,
London EC4P 4EL

Solicitors to the Company and to the Offer for Sale
Linklaters & Paines
Barrington House,
59/67 Gresham Street,
London EC2V 7JA

Stockbrokers
Laing & Cruickshank
Piercy House, 7 Copthall Avenue,
London EC2R 7BE

Auditors and Reporting Accountants
Price Waterhouse,
Chartered Accountants
Southwark Towers, 32 London Bridge Street,
London SE1 9SY

Bankers
Lloyds Bank Plc
39 Threadneedle Street,
London EC2R 8AU

Receiving Bankers
Lloyds Bank Plc
Registrar's Department, Issue Section, 111 Old Broad Street,
London EC2N 1AU

Registrars and Transfer Office
Lloyds Bank Plc
Registrar's Department,
Goring-by-Sea, Worthing,
West Sussex BN12 6DA

INFORMATION CONCERNING THE COMPANY

Introduction

German Smaller Companies Investment Trust plc is being established to provide a specialist medium through which United Kingdom investors can take advantage of investment opportunities in West Germany. The Company's principal objective is to achieve capital appreciation through investment primarily in the equity securities of small and medium-sized West German companies in which above-average growth potential is perceived. There is no other listed United Kingdom investment trust specialising solely in making investments in West Germany.

The funds raised for the Company under this Offer for Sale, which has been underwritten by Lloyds Bank International Limited, will amount to approximately £12 million, after expenses.

The West German Economy and Stock Market

West Germany has long had one of the strongest economies in Europe. This strength is supported by the country's traditional reputation for quality and efficiency and by strict monetary and fiscal policies which succeeded in reducing the annual rate of inflation to 2 per cent. by the end of 1984. These factors, combined with the recent strength of the United States Dollar and Japanese Yen against the Deutsche Mark, have increased the competitiveness of West German goods in world markets and improved the prospects for further economic growth. Government policy in West Germany, since the existing coalition came to power in October 1982, has been to encourage private sector investment and entrepreneurial effort. This encouragement, in turn, contributed to a significant rise in company profits in 1983 and 1984, during which period West Germany's FAZ 100-share index rose by 51 per cent. to reach a record level by the end of 1984.

Concurrent with these developments, there has been a marked increase in the number of new companies being formed and a record number of flotations of small and medium-sized companies on the West German stock and over-the-counter markets. Of the 64 companies which have been brought to these markets since 1960, 32 have been floated in the past two years. The Directors consider that the sharp increase in the number of such flotations is principally attributable to the rise in company profits and the record market levels referred to above. The Directors also anticipate a shift towards investment by individuals in shares and securities as a result of recent restrictions on the tax sheltering advantages of certain other investments.

The Directors consider that the combination of West Germany's basic strengths and the growth potential of small and medium-sized companies in that country now presents attractive investment opportunities.

Investment Management

The Directors of the Company will be responsible for the determination of the Company's investment policy and will have overall control of the Company's activities. The Company has appointed Lloyds Bank Fund Management Limited as Investment Manager to manage the Company's portfolio on a day-to-day basis and to make and implement specific investment decisions. The individual fund managers within Lloyds Bank Fund Management Limited have considerable experience in investing institutional funds and they are currently responsible for the discretionary management of 31 institutional portfolios and 9 unit trusts with funds amounting to approximately £3,000 million, of which £21 million is invested in West Germany. The terms of the Investment Management Agreement are summarised in paragraph 6(b) under 'General Information' below.

The Investment Manager will be advised by Schröder, Münchmeyer, Hengst Capital GmbH ("SMH Capital"), which has been appointed as Investment Adviser on the terms of the Investment Advisory Agreement summarised in paragraph 6(c) under 'General Information' below. SMH Capital is the Frankfurt-based investment management arm of Schröder, Münchmeyer, Hengst & Co., a West German investment and commercial banking organisation which became a member of the Lloyds Bank Group in January 1984. SMH Capital has considerable experience in portfolio management for institutional clients in West Germany and, directly and through its subsidiaries, manages 7 institutional funds and 4 mutual funds one of which specialises in small West German companies. Total funds under the management of SMH Capital exceed £300 million, of which more than one-half is invested in West German equities.

The combined expertise of the Directors of the Company, the Investment Manager and the Investment Adviser will be of significance in the successful development of the Company's portfolio. Particular advantages are expected to result from the links between Lloyds Bank Fund Management Limited and SMH Capital and the specialist local knowledge and experience of the latter in relation to West Germany.

Investment Policy

The principal objective of the Company is the achievement of capital appreciation. Accordingly, the Company will build up a diversified portfolio by actively seeking and investing the net proceeds of this Offer for Sale in equity securities of small and medium-sized West German companies which are perceived to have particular expertise in their markets and above-average growth potential. United Kingdom investors would, in general, either be unaware of such companies or unable to invest in them as cost-effectively as the Company. Securities of large multinational companies based in West Germany will not normally be included in the portfolio unless the prospects of capital appreciation are considered to be significantly better than those of comparable investments in small and medium-sized companies.

It will be part of the investment policy of the Company that not more than 10 per cent. of its assets (before deducting borrowed money, if any) may be invested in the securities of, or lent to, any one company (including loans to and shares in its own subsidiaries, if any). Furthermore, the Company will not invest more than 25 per cent. of its assets (before deducting borrowed money, if any) in the aggregate of (a) holdings in which the interest of the Company amounts to 20 per cent. or more of the aggregate of the equity capital (including any capital having an element of equity) of any one listed company and (b) securities not listed on any recognised stock exchange (for which purpose West German over-the-counter markets are not treated as recognised stock exchanges). This investment policy will be adhered to for a period of at least 3 years from the date of this document.

It is the intention of the Directors that the income of the Company will be derived mainly from securities although interest will be earned on funds which are from time to time held in liquid form pending investment. Cash and liquid funds will normally be held in Deutsche Marks unless it is judged that higher returns could be derived from holding Sterling.

The Company is empowered, by its Articles of Association, to borrow an amount of up to its net assets; it is not, however, presently envisaged that this borrowing power will be extensively utilised other than to enable the Company to take advantage of temporary market opportunities.

Warrants

Successful applicants will receive warrants conferring, in respect of every 5 ordinary shares purchased under the Offer for Sale, the right to subscribe for 1 ordinary share. The warrants will be exercisable on 31st August in any of the years 1986 to 1995 inclusive at a subscription price of 100p per share (subject to the usual adjustments). Further details are set out under 'Particulars of the Warrants' below.

Dividend Policy and Accounts

In order to qualify as an investment trust under the Income and Corporation Taxes Act 1970 (as amended), not less than 85 per cent. of the Company's income arising from shares and securities in any accounting period will be distributed to shareholders. As stated above, however, the principal objective of the Company is the achievement of capital appreciation and, consequently, investments are not expected to be made in high-yielding securities; dividend payments by the Company are therefore likely to remain modest. The Company's Articles of Association provide that profits from the sale of securities will not be available for distribution as dividends. Annual accounts will be made up to 31st March in each year. The Company's first accounts will be made up for the period from its incorporation to 31st March, 1986.

Directors of the Company

Mr A. J. Davis, RD, aged 60, is the Chairman of the Company. After more than 40 years' service with Lloyds Bank Plc, he retired as Chief General Manager in July 1984. From 1978 until his retirement, Mr Davis was Chairman of the Lloyds Bank Staff Funds Investments Management Committee. He is now the non-executive Vice Chairman of Lloyds Bank Plc and of Lloyds and Scottish Plc, a non-executive Director of Yorkshire Bank PLC and Deputy Chairman of the Council of the Institute of Bankers.

Mr B. T. Ackerman, aged 40, is a Director of Lloyds Bank Fund Management Limited. He joined the Lloyds Bank Group in 1970 as a senior investment analyst, subsequently managing institutional funds, and in 1983 was appointed Deputy Chief Investment Manager with responsibility for investment policy and London-based fund management activities.

Herr M. Emcke, aged 51, is the former Chief Executive of Reemtsma Cigarettenfabriken GmbH, a major West German tobacco company. He is now a non-executive Director of several West German companies, including Deckel AG (of which he is Chairman), Tschibo Frisch-Rösch-Kaffee AG (of which he is Vice Chairman), Continental Gummi-Werke AG and Orenstein & Koppel AG.

Dr K. Kaposi, aged 47, is Managing Director of SMH Capital where he has been responsible for investment management activities since joining the predecessor of that company in 1981. Dr Kaposi has been involved in fund management since 1970 and, for the 6 years prior to joining SMH Capital, he was a fund manager with ADIG Allgemeine Deutsche Investment-Gesellschaft, a West German fund management company.

Mr H. C. Partridge, aged 59, has been Controller of Finance and Planning at the Civil Aviation Authority ("CAA") since its formation in 1972. He was appointed a Member of the CAA in 1974 and is currently Chairman of Caviapen Trustees Limited, the custodian trustee of the CAA pension funds, and of the Trustees of the CAA Superannuation Scheme. Mr Partridge is also a non-executive Director of Charterhouse Japhet Venture Fund Management Limited and acts as an adviser to several venture capital funds.

Taxation Considerations

The following information is based on the law and practice currently in force in the United Kingdom and in West Germany. If investors are in any doubt about their taxation position, they should ascertain from their professional advisers the consequences to them of acquiring, holding or disposing of ordinary shares and warrants in the Company.

The Company

It is the intention of the Directors so to conduct the affairs of the Company that it satisfies the conditions for approval as an investment trust laid down in Section 359 of the Income and Corporation Taxes Act 1970 (as amended). Such approval is granted retrospectively and, in respect of each accounting period for which approval is granted, the Company will be exempt from corporation tax on its capital gains. The income of the Company (including income arising outside the United Kingdom) will be subject to corporation tax after relief for expenses and loan interest. Income arising in West Germany may be subject to withholding taxes at varying rates but double taxation relief will be available to reduce the Company's United Kingdom corporation tax; the amount of such relief may be limited by the requirement to pay Advance Corporation Tax on dividends.

United Kingdom Shareholders and Warrantholders

With regard to income, shareholders will be entitled to receive an associated tax credit in respect of dividends corresponding to the Advance Corporation Tax applicable to such dividends and payable by the Company. With regard to capital gains, shareholders and warrantholders may be liable to taxation in respect of gains arising from the sale or other disposal of shares or warrants or on a winding up of the Company. For the purposes of taxation on capital gains the amount subscribed by initial purchasers of ordinary shares (with warrants attached) will need to be apportioned between the ordinary shares and the warrants on the basis of their respective values at the date of allotment of the ordinary shares. The relationship between those values is expected to be close to that between the ordinary shares and the warrants on the date when they are first dealt in separately.

The exercise of warrants will not constitute the disposal of an asset for the purposes of United Kingdom capital gains tax; the cost attributable to the warrants exercised will be added to the cost of the ordinary shares so acquired.

The warrants will not constitute "wasting assets" under Section 138 of the Capital Gains Tax Act 1979 and, on their disposal or abandonment, the cost attributable to the warrants, calculated as above, will be allowed in computing any gain or loss.

Accountants' Report

The following is the text of a report received by the Directors from Price Waterhouse, the Auditors and Reporting Accountants:

The Directors,
German Smaller Companies Investment Trust plc and
Lloyds Bank International Limited.

Southwark Towers,
32 London Bridge Street,
London SE1 9SY.

1st February, 1985.

Gentlemen,
We report that German Smaller Companies Investment Trust plc was incorporated on 21st January, 1985 and since that date no audited accounts have been made up, no dividends have been declared or paid and the Company has not commenced business.
Yours faithfully,
Price Waterhouse, *Chartered Accountants.*

Application Procedure and Dealings

The application procedure in respect of the 12,500,000 ordinary shares (with warrants attached) now being offered for sale and a detachable application form appear at the end of this document. Application forms, each with the appropriate remittance, should be lodged not later than 10 a.m. on Thursday, 7th February, 1985. It is expected that fully paid renounceable letters of acceptance will be posted on Tuesday, 12th February, 1985 and that dealings in the ordinary shares (with warrants attached) will commence on Wednesday, 13th February, 1985. Until Friday, 22nd March, 1985 (the last date for registration of renunciation), dealings in the ordinary shares (with warrants attached) will be in multiples of 5 ordinary shares only; thereafter, ordinary shares and warrants will be dealt in separately.

At 3 p.m. on 29th January, 1985 the exchange rate in the London spot market was Deutsche Marks 3.5355 to £1 Sterling. All financial information given herein has, where relevant, been based on this exchange rate.
The ordinary shares and warrants will be quoted in Sterling, whereas the underlying investments of the Company will generally be denominated in Deutsche Marks. Investors should be aware that non-Sterling investments carry the risk of currency fluctuations.

PARTICULARS OF THE WARRANTS

Warrants will be issued subject to and with the benefit of the following conditions:

1 **Subscription Rights**

(a) A registered holder ("a holder") of a warrant shall have rights to subscribe ("subscription rights") in cash on 31st August in any of the years 1986 to 1995 inclusive (or, if later, the date in any such year 30 days after the date on which copies of the audited accounts of the Company for its then immediately preceding financial year are despatched to holders) for all or any of the ordinary shares of 50p each of the Company specified in the warrant at a subscription price of 100p per ordinary share ("subscription price") payable in full on subscription. Each date on which subscription rights are exercisable is herein referred to as a "subscription date".

(b) In order to exercise the subscription rights the holder of a warrant must, having completed the Notice of Subscription thereon, lodge it at the office of the Registrars of the Company not later than 7 days prior to the relevant subscription date, accompanied by a remittance for the total subscription price of the ordinary shares in respect of which the subscription rights are exercised. Once lodged, a Notice of Subscription shall be irrevocable save with the consent of the Directors. Compliance must also be made with any statutory requirements for the time being applicable. The subscription rights will not be exercisable in respect of a fraction of an ordinary share.

(c) Not earlier than 6 weeks nor later than 4 weeks before each subscription date the Company shall give notice in writing to the holders of the outstanding warrants reminding them of their subscription rights.

(d) The ordinary shares issued pursuant to the exercise of subscription rights will be allotted not later than 14 days after and with effect on and from the relevant subscription date and certificates in respect of such shares will be issued not later than 28 days after the relevant subscription date to the persons in whose names the warrants are registered at the date of such exercise or (subject as permitted by law) to such other persons as may be named in the Form of Nomination on the reverse of the warrant. If the subscription rights comprised in a warrant are exercised in part, the Company shall at the same time issue a fresh warrant in the name of the holder for any balance of his subscription rights remaining exercisable.

(e) Ordinary shares allotted pursuant to the exercise of subscription rights will not rank for any dividends or other distributions declared, made or paid in respect of any financial year of the Company prior to the financial year in which the subscription date falls but, subject thereto, will rank *pari passu* in all other respects with the ordinary shares in issue at that date including in full for all dividends and other distributions in respect of the then current financial year but not for any earlier period.

Application will be made to the Council of The Stock Exchange for the ordinary shares allotted pursuant to any exercise of subscription rights to be admitted to the Official List and the Company will use all reasonable endeavours to obtain the grant thereof not later than 28 days after the relevant subscription date.

2 **Adjustment of Subscription Rights**

(a) Upon any allotment of ordinary shares fully paid by way of capitalisation of profits or reserves to holders of the ordinary shares on the register on a date (or by reference to a record date) before the final subscription date or upon any sub-division or consolidation of the ordinary shares before such date, the number and/or nominal value of ordinary shares to be subscribed on any subsequent exercise of the

subscription rights will be increased or, as the case may be, reduced in due proportion and the subscription price per share will be adjusted accordingly. On any such capitalisation, sub-division or consolidation the Auditors for the time being of the Company shall certify the appropriate adjustments and within 28 days of such adjustments notice will be sent to each holder of a warrant together with a warrant in respect of any additional shares for which that holder is entitled to subscribe in consequence thereof, fractional entitlements being ignored.

(b) If, on a date (or by reference to a record date) before the final subscription date, the Company makes any offer or invitation (whether by rights issue or otherwise) to the holders of the ordinary shares, or any offer or invitation (not being an offer to which paragraph 3 (f) below applies) is made to such holders otherwise than by the Company, then the Company shall, so far as it is able, procure that at the same time the same offer or invitation is made to the then holders of the warrants as if their subscription rights had been exercisable and had been exercised on the day immediately preceding the record date of such offer or invitation on the basis then applicable.

3 Other Provisions

So long as any subscription rights remain exercisable:

(a) the Company shall not (i) make any distribution of capital profits or capital reserves except by means of a capitalisation issue in the form of fully paid ordinary shares, (ii) issue securities by way of capitalisation of profits or reserves except ordinary shares credited as fully paid and issued to the holders of its ordinary shares, or (iii) on or by reference to a record date falling within the period of 6 weeks ending on any subscription date make any such offer or invitation as is referred to in paragraph 2(b) above (except by extending to the holders of the warrants any such offer as may be made by a third party);

(b) the Company shall not in any way modify the rights attached to its existing ordinary shares as a separate class or create any new class of share capital except for shares which carry, as compared with the existing ordinary shares, no more advantageous rights as regards voting, dividends and return of capital;

(c) the Company shall keep available for issue sufficient authorised but unissued share capital to satisfy in full without the need for the passing of any resolution by shareholders all subscription rights remaining exercisable;

(d) the Company shall not issue any ordinary shares credited as fully paid by way of capitalisation of profits or reserves nor make any such offer as is referred to in paragraph 2 (b) above if as a result the Company would on any subsequent exercise of the subscription rights be obliged to issue ordinary shares at a discount;

(e) the Company shall not (i) amend its Articles of Association so as to enable any distribution of capital profits or capital reserves, (ii) reduce its share capital or (except as authorised by Section 56 of the Companies Act 1948 as from time to time amended or re-enacted) any share premium account, or (iii) purchase or redeem any share capital;

(f) if at any time an offer is made to all ordinary shareholders of the Company (or all such shareholders other than the offeror and/or persons acting in concert with the offeror) to acquire the whole or any part of the issued ordinary share capital of the Company and the Company becomes aware that as a result of such offer the right to cast a majority of the votes which may ordinarily be cast at a General Meeting of the Company has become vested in the offeror and/or such persons as aforesaid, the Company shall give notice to the warrantholders of such vesting within 14 days of becoming so aware, and each such holder shall be entitled, at any time within the period of 180 days immediately following the date of such notice (for which purposes the date on which such notice is given shall be deemed to be a subscription date), to exercise his subscription rights on the terms (subject to any adjustment pursuant to paragraph 2(a) above) set out in paragraph 1 above and in that failing such exercise within such period such rights shall upon the expiry of such period cease and determine provided that if, during such period, such offeror (and/or such persons as aforesaid) becomes entitled to exercise rights of compulsory acquisition of ordinary shares pursuant to Section 209(1) of the Companies Act 1948 and gives notice in writing to any holders of ordinary shares that be intends to exercise such rights, the warrants shall be and remain exercisable until one month from the date of such notice and to the extent that they have not been exercised shall thereupon cease and determine; and

(g) if an order is made or an effective resolution is passed for winding up the Company (except for the purpose of reconstruction, amalgamation or unitisation on terms sanctioned by an extraordinary resolution of the holders of the warrants), each holder of a warrant will (if in such winding up there shall be a surplus available for distribution amongst the holders of the ordinary shares (including for this purpose the ordinary shares which would arise on the exercise of all the subscription rights) which, taking into account the amounts payable on the exercise of the subscription rights, exceeds in respect of each ordinary share a sum equal to the subscription price) be treated as if immediately before the date of such order or resolution his subscription rights had been exercisable and had been exercised in full on the basis then applicable, and shall accordingly be entitled to receive out of the assets available in the liquidation *pari passu* with the holders of the ordinary shares such a sum as be would have received had be been the holder of the ordinary shares to which he would have become entitled by virtue of such subscription after deducting a sum per share equal to the subscription price; subject to the foregoing, all subscription rights shall lapse on liquidation of the Company.

4 Modification of Rights

(a) All or any of the rights for the time being attached to the warrants may from time to time (whether or not the Company is being wound up) be altered or abrogated with the sanction of an extraordinary resolution of the holders of the warrants.

(b) For the purposes of these conditions "extraordinary resolution" means a resolution proposed at a meeting of the holders duly convened and held and passed by a majority consisting of not less than three-fourths of the votes cast, whether on a show of hands or on a poll. All the provisions of the Articles of Association for the time being of the Company as to General Meetings shall *mutatis mutandis* apply as though the warrants were a class of shares forming part of the capital of the Company but so that (i) the period of notice shall be 21 days at least, (ii) the necessary quorum shall be holders (present in person or by proxy) entitled to subscribe for one-third in nominal amount of the ordinary shares attributable to the then outstanding warrants, (iii) every holder present in person at any such meeting shall be entitled on a show of hands to one vote and every holder present in person or by proxy shall be entitled on a poll to one vote for every ordinary share for which he is entitled to subscribe, (iv) any holder present in person or by proxy may demand or join in demanding a poll, and (v) if at any adjourned meeting a quorum as above defined is not present, those holders who are then present in person or by proxy shall be a quorum.

5 Transfer

Each warrant will be registered and will be transferable in whole or in part by instrument of transfer in any usual or common form, or in any other form which may be approved by the Directors. No transfer of a right to subscribe for a fraction of an ordinary share may be effected.

6 General

The Company will concurrently with the issue of the same to its ordinary shareholders send to each warrantholder (or in the case of joint holders to the first-named) a copy of each published annual report and accounts of the Company together with all documents required by law to be annexed thereto, and a copy of every statement, notice or circular issued to ordinary shareholders.

SUMMARY OF THE COMPANY'S OBJECTS AND ARTICLES OF ASSOCIATION

The Company's Objects

The Memorandum of Association of the Company provides that the Company's principal objects are to carry on the business of an investment trust company in all its branches, and for that purpose to acquire and hold for investment shares, stock, debentures, debenture stock, bonds, notes, obligations and securities issued or guaranteed by any company and debentures, debenture stock, bonds, obligations and securities issued or guaranteed by any government, sovereign ruler, commissioners, public body or authority, supreme, municipal, local or otherwise, and units of and other rights in unit trusts, mutual funds, collective investment undertakings and other bodies and entities, in any such case whether at home or abroad, and to act as and to perform all the functions of a holding company. The objects of the Company are set out in full in Clause 4 of the Memorandum of Association which is available for inspection at the address specified in paragraph 9 under 'General Information' below.

Articles of Association

The Articles of Association of the Company contain, *inter alia*, provisions to the following effect:

1 Directors

(a) The minimum number of Directors is two and the maximum ten.

(b) No share qualification shall be required.

(c) Subject to the provisions of the Companies Acts 1948 to 1983, the Directors may from time to time appoint one or more of their number to be the holder of any executive office on such terms (including remuneration) as they think fit and, without prejudice to the terms of any contract between him and the Company, may at any time revoke any such appointment. At each Annual General Meeting one-third of the Directors (or the number nearest to but not exceeding one-third) shall retire by rotation.

(d) Subject to the provisions of the Companies Acts 1948 to 1983, a Director may hold any other office or place of profit under the Company or any other company in which it is interested (other than that of auditor) in conjunction with his office of Director for such period and on such terms (as to remuneration and otherwise) as the Directors may determine and no Director shall be disqualified by his office from contracting with the Company or any other company in which it is interested or shall be liable to account to the Company for any profit realised from any such contract by reason of such Director holding that office. Any Director may act by himself or his firm in a professional capacity for the Company (otherwise than as auditor) and he or his firm shall be entitled to remuneration for professional services as if he were not a Director.

(e) The Directors shall be entitled to a maximum aggregate remuneration of £20,000 per annum (or such greater amount as shall be determined by ordinary resolution of a General Meeting of the Company), to be divided between them as they may determine. The Directors may be paid all reasonable expenses properly incurred by them in attending meetings of the Directors and committees of the Directors, General Meetings or otherwise in or about the business of the Company.

(f) Any Director who, in the opinion of the Directors, performs services outside the scope of the ordinary duties of a Director, may be paid such remuneration as the Directors may think fit either in addition to or in substitution for any other remuneration be may be entitled to receive.

(g) Save in relation to certain specific exceptions in the Articles of Association (for example concerning the giving of security in respect of obligations incurred by a Director on behalf of the Company, an offer of securities in which he is interested as an underwriter, or a pension or employees' share scheme which is subject to Inland Revenue approval) a Director shall not vote (or be counted in the quorum present at a meeting of the Directors in relation to any resolution on which be is debarred from voting) in regard to any contract, transaction, arrangement or proposal in which be has a material interest. Subject to the provisions of the Companies Acts 1948 to 1983, the Company may by ordinary resolution suspend or relax such provision to any extent or ratify any transaction not duly authorised by reason of such provisions.

(h) Section 185 of the Companies Act 1948, regarding the appointment and retirement of Directors who have attained the age of 70, applies to the Company.

(i) The Directors on behalf of the Company may pay a gratuity or pension or allowance on retirement to any Director who has held any salaried office or place of profit with the Company or any subsidiary or to his widow or dependants and may make contributions to any fund and pay premiums for the purchase or provision of any such gratuity, pension or allowance and may make payments for or towards the insurance of any such person.

2 Borrowing Powers

The Directors of the Company may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital and, subject to the Companies Acts 1948 to 1983, to issue debentures and other securities whether outright or as a collateral security for any debt, liability or obligation of the Company or of any third party. The Directors shall restrict the borrowings of the Company and exercise all voting and other rights or powers of control exercisable by the Company in relation to its subsidiaries (if any) so as to secure (but as regards subsidiaries only insofar as by the exercise of such rights or powers of control the Directors can secure) that the aggregate amount for the time being remaining outstanding of all moneys borrowed by the Company and its subsidiaries (other than from any of such companies) shall not at any time, without the previous sanction of an ordinary resolution of the Company, exceed a sum equal to the aggregate of the amount paid up on the issued share capital for the time being of the Company and the amounts standing to the credit of reserves of the Company and its subsidiaries.

3 Capital Reserve

The Directors of the Company shall establish a capital reserve and carry to the credit of such reserve or apply in providing for depreciation or contingencies all capital appreciation arising on the sale, realisation or re-valuation of any capital assets of the Company in excess of the book value thereof. Any losses realised on the sale or realisation of any capital assets and any taxation arising in consequence of any such sale or realisation may be debited against the capital reserve except insofar as the Directors shall in their discretion decide to make good the same out of other funds of the Company. The capital reserve, and all moneys in the nature of accretion to capital assets, shall not be available for dividend.

4 Issue of Securities

Subject to the provisions of the Companies Acts 1948 to 1983, all unissued shares are at the disposal of the Directors who may allot, grant options over or otherwise dispose of them on such terms and to such persons as they think proper.

5 Variation of Rights

All rights or any of the rights or privileges attaching to any class of share may, subject to the provisions of the Companies Acts 1948 to 1983, be varied or abrogated either with the consent in writing of the holders of not less than three-fourths of the issued shares of that class or with the sanction of an extraordinary resolution passed at a separate meeting of the holders of such shares.

6 Voting

Subject to disenfranchisement of a member in the event of non-payment of any calls or other moneys due and payable in respect of any shares or non-compliance with a statutory notice requiring disclosure as to beneficial ownership and subject to any special terms as to voting on which any shares may be held, on a show of hands every member present in person shall have one vote, and on a poll every member present in person or by proxy shall have one vote for every ordinary share held by him.

7 Transfer of Shares

Shares are in registered form and the instrument of transfer of a share may be in any usual form or in any other form which the Directors may approve, and shall be executed by or on behalf of the transferor and, unless the share is fully paid, by or on behalf of the transferee. The Directors may in their absolute discretion, and without giving any reason, refuse to register the transfer of a share which is not fully paid. The Articles contain no restrictions on the free transferability of fully paid ordinary shares, provided that transfers are in favour of not more than 4 transferees.

8 Dividends and Distribution of Assets on Liquidation

The holders of the ordinary shares are entitled *pari passu* amongst themselves, but in proportion to the number of ordinary shares held by them, to share in the whole of the profits of the Company paid out as dividends and the whole of any surplus in the event of the liquidation of the Company.

9 Unclaimed Dividends

Any dividend unclaimed after a period of twelve years from its date of declaration shall be forfeited and shall revert to the Company.

GENERAL INFORMATION

1 Borrowings

At the date hereof the Company has no loan capital (including term loans) outstanding, or created but unissued, nor any outstanding mortgages, charges, debentures or other borrowings or indebtedness in the nature of borrowing, including bank overdrafts, liabilities under acceptances or acceptance credits, hire purchase commitments, guarantees or other material contingent liabilities.

2 Share Capital

(a) The Company was incorporated in England under the Companies Acts 1948 to 1983 on 21st January, 1985 as a public limited company (registered number 1879372) with an authorised share capital of £50,000 divided into 100,000 ordinary shares of 50p each. On 23rd January, 1985 two ordinary shares were issued at 100p each to the subscribers to the Memorandum of Association.

(b) On 23rd January, 1985 resolutions of the Company were passed whereby:

(i) the authorised share capital of the Company was increased to £7,500,000 divided into 15,000,000 ordinary shares of 50p each;

(ii) the Directors were, pursuant to Section 14 of the Companies Act 1980, given authority (expiring on 23rd January, 1986) and empowered, in accordance with Section 18 of that Act as if Section 17 (1) thereof did not apply, to allot and to make offers or agreements to allot relevant securities up to the amount of the increased authorised share capital; and

(iii) the Company adopted new Articles of Association.

(c) On 23rd January, 1985 the subscribers to the Memorandum of Association transferred their shares to Lloyds Bank International Limited ("LBI") and LBI agreed to subscribe for a further 99,998 ordinary shares at 98.19p each and such ordinary shares were allotted to LBI against an irrevocable undertaking by LBI to pay 60.69p per share not later than 31st May, 1985 and the balance when called thereafter.

(d) On 31st January, 1985 the Company obtained a certificate under Section 4 of the Companies Act 1980 authorising it to commence business.

(e) On 31st January, 1985 the Company created warrants, having the rights set out under 'Particulars of the Warrants' above, to subscribe for 2,500,000 ordinary shares.

(f) The share capital of the Company is as follows:

	Ordinary shares of 50p each
Issued to subscribers	2
Now being issued	12,499,998
In issue following the Offer for Sale	12,500,000
Reserved for issue pursuant to the exercise of warrants	2,500,000
Aggregate number presently authorised	15,000,000

Save as disclosed above, no issues of share capital have been made by the Company.

(g) Apart from the issue of ordinary shares pursuant to the Offer for Sale and upon the exercise of subscription rights attaching to the warrants:

(i) no material issue of shares of the Company (other than to shareholders *pro rata* to existing shareholdings) will be made within one year of the date of this document without the prior approval of shareholders in General Meeting;

(ii) no issue of shares in the Company will be made which would effectively alter the control of the Company without the prior approval of shareholders in General Meeting; and

(iii) no share or loan capital of the Company is under option or agreed conditionally or unconditionally to be put under option.

3 Directors' and Other Interests

(a) No Director has any interest (as defined in Part IV of the Companies Act 1981) in the share capital of the Company. The following Directors have indicated their intention to apply under the Offer for Sale for the numbers of ordinary shares (with warrants attached) specified against their names—Mr A. J. Davis: 1,000; Mr H. C. Partridge: 1,000.

(b) Save through the directorships disclosed in paragraph 3(e) below, no Director has or has had any interest in any transaction which, since its incorporation, has been effected by the Company.

(c) The Directors are aware of intended applications from sub-underwriters for a total of 9,375,000 ordinary shares (with warrants attached), representing 75 per cent. of the issued share capital and warrants of the Company following the Offer for Sale, which applications will be accepted in full. Of this total, funds under the management of Lloyds Bank Fund Management Limited ("LBFM") account for intended applications for a total of 2,500,000 ordinary shares (with warrants attached), representing 20 per cent. of the issued share capital and warrants of the Company following the Offer for Sale. If the offer is not fully taken up then funds under the management of LBFM could, as a result of their sub-underwriting commitments, come to hold a maximum of an additional 25 per cent. of the issued share capital and warrants of the Company following the Offer for Sale. The Panel on Take-overs and Mergers has stated that if, as a result of such arrangements, such funds come to hold in aggregate 30 per cent. or more of the issued share capital of the Company it will waive any obligation which there would otherwise be to make a general offer under Rule 34 of the City Code. Thereafter, LBFM and funds under its management would be free to increase their aggregate holding in the Company by not more than 2 per cent. in any twelve-month period up to an aggregate holding of 50 per cent. of the issued share capital of the Company and thereafter by any amount without being obliged to make a general offer under the said Rule 34.

(d) The Directors are aware of the following interests which, immediately following the Offer for Sale, and assuming the offer is fully taken up, will amount to 5 per cent. or more of the issued share capital of the Company:

	Ordinary shares of 50p each	*Percentage of issued share capital*
LBFM (in respect of its managed funds)	2,500,000	20.0
Caviapen Trustees Limited	650,000	5.2

Save as disclosed above, the Directors are not aware of any other person who, following the Offer for Sale, would be required to disclose an interest in the ordinary shares under Part IV of the Companies Act 1981.

(e) LBI, LBFM and SMH Capital are all wholly-owned subsidiaries of Lloyds Bank Plc. Mr A. J. Davis, a Director of the Company, is non-executive Vice Chairman of Lloyds Bank Plc and Mr B. T. Ackerman and Dr K. Kaposi, both also Directors of the Company, are Directors of LBFM and SMH Capital respectively. Mr H. C. Partridge, a Director of the Company, is a Director of Caviapen Trustees Limited.

4 Directors' Service Agreements

All the Directors are non-executive. Accordingly, there are no service agreements existing between the Company and its Directors and no such agreements are proposed to be entered into. No remuneration has been paid to the Directors to date and it is the intention of the Directors that no remuneration should be paid to them in the future, other than the fees referred to in paragraph 1(e) under 'Summary of the Company's Objects and Articles of Association' above.

5 Offer for Sale Arrangements

By an Agreement dated 1st February, 1985 and made between (1) the Company, (2) the Directors and (3) LBI, LBI agreed to subscribe for 12,400,000 ordinary shares of 50p each in the Company, with warrants attached to subscribe for 2,500,000 ordinary shares, for a subscription price of 98.19p per share and, at the same time as making payment therefor to make payment in full for the 99,998 ordinary shares referred to in paragraph 2(c) above and to offer all the same, together with the 2 ordinary shares purchased from the subscribers, to the public at the Offer for Sale price of 100p per share. The Agreement is conditional, *inter alia*, on the Council of The Stock Exchange admitting all of the ordinary shares, issued and now being issued, and warrants of the Company to the Official List (subject only to acceptance) not later than 13th February, 1985.

The Agreement provides for the Company to pay a fee of £30,000 to LBI and a fee of £10,000 to Laing & Cruickshank, the Company's Stockbrokers, and all costs and expenses of or incidental to the Offer for Sale (including all applicable value added tax) other than the sub-underwriting commissions.

The Agreement also contains provisions which permit it to be terminated by LBI or the Company, prior to the announcement of the basis of allocation, in the event of a material breach of any of the warranties given to LBI therein or, by LBI, if LBI determines that, by reason of a material adverse change to market conditions, the Offer for Sale should not proceed.

LBI will pay sub-underwriting commissions of 1¼ per cent. of the Offer for Sale price (plus value added tax) to those sub-underwriters who have already indicated their intention to apply for an aggregate of 9,375,000 ordinary shares in the Offer for Sale. The balance of 3,125,000 ordinary shares now being offered is being sub-underwritten by funds managed by LBFM which funds will be paid sub-underwriting commissions by LBI equivalent to ½ per cent. of the Offer for Sale price (plus value added tax).

The Company has agreed to pay introductory commissions of ½ per cent. of the Offer for Sale price (plus value added tax) to recognised banks and stockbrokers on accepted applications bearing their stamp and value added tax registration number (if applicable).

6 Material Contracts

The following contracts, not being contracts entered into in the ordinary course of business, have been entered into by the Company since its incorporation and are, or may be, material:

(a) the Offer for Sale Agreement referred to in paragraph 5 above;

(b) an Agreement dated 1st February, 1985 between (1) the Company and (2) LBFM whereunder LBFM has agreed to provide investment management services to the Company for an annual fee of ¾ per cent. of the value of the Company's gross assets at the end of the preceding year, such fee being payable by equal half-yearly instalments in advance. The Agreement contains provisions indemnifying LBFM against any liability not due to its wilful default, bad faith or gross negligence. The Agreement is terminable by 3 months' notice expiring on or at any time after 1st February, 1988; and

(c) an Agreement dated 1st February, 1985 between (1) the Company, (2) LBFM and (3) SMH Capital whereunder SMH Capital has agreed to provide investment advisory services to LBFM and the Company for a fee payable by LBFM and to be agreed between LBFM and SMH Capital. The Agreement contains provisions indemnifying SMH Capital against any liability not due to its wilful default, bad faith or gross negligence. The Agreement is terminable by the Company or SMH Capital by 3 months' notice expiring on or at any time after 1st February, 1988.

7 Taxation

(a) It is intended that approval under Section 359 of the Income and Corporation Taxes Act 1970 in respect of the status of the Company as an approved investment trust will be applied for in respect of each accounting period.

(b) When paying a dividend the Company has to remit to the Inland Revenue an amount of Advance Corporation Tax ("ACT") at a rate which is related to the basic rate of income tax and is currently 3/7ths of the dividend paid. Accordingly, the ACT related to a dividend currently equals 30 per cent. of the sum of the cash dividend plus the ACT.

For non-corporate shareholders resident in the United Kingdom, an amount equivalent to the ACT paid is available as a tax credit which such shareholders who are so resident may be able to set off against their total income tax liability or, in appropriate cases, reclaim in cash. A United Kingdom resident corporate shareholder will not be liable to United Kingdom corporation tax on any dividend received. Persons should consult their own tax advisers about their personal situations and the possibility of claiming tax credits equivalent to the ACT paid on the dividend.

Whether shareholders who are resident in countries other than the United Kingdom are entitled to a payment from the Inland Revenue of a proportion of the tax credit in respect of dividends on such shares depends in general upon the provisions of any double tax convention or agreement which exists between such countries and the United Kingdom. Persons who are not resident in the United Kingdom should also consult their own tax advisers on the possible applicability of such provisions, the procedure for claiming payment and as to what relief or credit may be claimed in the jurisdiction in which they are resident for such tax credit.

8 General

(a) The Company has not since its incorporation been engaged in and is not currently engaged in any litigation or arbitration of material importance nor, so far as the Directors are aware, is there any litigation or claim of material importance pending or threatened against the Company.

(b) Save as disclosed herein there has been no significant change in the trading or financial position of the Company since its incorporation.

(c) Price Waterhouse have given and have not withdrawn their written consent to the issue of this document with the inclusion herein of their Accountants' Report set out above in the form and context in which it is included.

(d) It is the intention of the Directors to to conduct the affairs of the Company that it satisfies the requirements for qualification as an investment company laid down in Section 41 of the Companies Act 1980 and the Company has given notice to the Registrar of Companies of its intention to carry on business as an investment company pursuant to that Section.

(e) The expenses of and incidental to the Offer for Sale and listing of the ordinary shares and warrants (including capital duty, registration and listing fees, the costs of printing, advertising and distributing this document, legal and accountancy fees) are estimated to amount to £321,000 (excluding value added tax) and are payable by the Company.

(f) The promoter of the Company is LBI. Save as disclosed in paragraph 5 above, no amount or benefit has been paid or given to LBI since the incorporation of the Company and none is intended to be paid or given, other than in respect of fees for services which may be rendered in the future.

(g) The principal place of business of the Company is at 40-66 Queen Victoria Street, London EC4P 4EL. The Company does not have nor has it had since its incorporation any employees.

(h) Each dividend on the ordinary shares will be paid to those holders of ordinary shares on the register of members on the record date for such dividend. Such record date will normally be 6 to 8 weeks before the date of payment.

(i) The Offer for Sale is made by LBI which is a wholly-owned subsidiary of Lloyds Bank Plc. 12,500,000 ordinary shares of 50p each in the Company are being offered for sale at the offer price of 100p per share payable in full on application including a premium of 50p over the nominal value of 50p. LBI is registered in England (registered number 994963) and its registered office is at 40-66 Queen Victoria Street, London EC4P 4EL.

(j) It is expected that the ordinary shares and warrants will be admitted to listing on 6th February, 1985, that fully paid renounceable letters of acceptance will be posted to successful applicants under the Offer for Sale on 12th February, 1985 and that dealings in the ordinary shares (with warrants attached) will commence on 13th February, 1985.

(k) Arrangements have been made for the shares now being offered for sale to be registered by the Company free of stamp duty in the names of the successful applicants or the persons in whose favour letters of acceptance have been renounced provided that, in cases of renunciation, letters of acceptance (duly completed in accordance with the instructions contained therein) are lodged for registration not later than 3 p.m. on 22nd March, 1985. Share and warrant certificates will be posted not later than 19th April, 1985.

9 Documents Available for Inspection

Copies of the following documents will be available for inspection at the offices of Linklaters & Paines, Barrington House, 59/67 Gresham Street, London EC2V 7JA during normal business hours on any weekday (Saturdays and public holidays excepted) for 14 days from the date of this document:

(a) the Memorandum and Articles of Association of the Company;

(b) the report from the Auditors and Reporting Accountants set out above;

(c) the consent referred to in paragraph 8(c) above; and

(d) the material contracts referred to in paragraph 6 above.

DATED 1st February, 1985.

APPLICATION PROCEDURE

1 Numbers of ordinary shares (with warrants attached) which may be applied for

Applications must be made on the application form below in accordance with the terms thereof, and must be for a minimum of 200 ordinary shares (with warrants attached) in the Company (referred to below as "shares") and in the following multiples:

Applications for not less than 200 shares and not more than 1,000 shares:	in multiples of 100 shares
Applications for over 1,000 shares and not more than 5,000 shares:	in multiples of 500 shares
Applications for over 5,000 shares and not more than 20,000 shares:	in multiples of 1,000 shares
Applications for over 20,000 shares and not more than 50,000 shares:	in multiples of 5,000 shares
Applications for over 50,000 shares:	in multiples of 10,000 shares

2 Submission of Application Forms and Payments

Each application form must be accompanied by a separate cheque or bankers' draft for the full amount payable on application and be forwarded or handed in to Lloyds Bank Plc, Registrar's Department, Issue Section, 111 Old Broad Street, London EC2N 1AU, so as to arrive not later than 10 a.m. on Thursday, 7th February, 1985. Cheques and bankers' drafts, which must be drawn in Sterling on a branch in the United Kingdom, the Channel Islands or the Isle of Man of a bank which either is a member of the London or Scottish Clearing Houses Association or which has arranged for its cheques and bankers' drafts to be cleared through the facilities provided by the members of those Clearing Houses and must bear the appropriate sorting code number in the top right hand corner, must be made payable to "Lloyds Bank Plc" and crossed "Not Negotiable" and must represent payment in full at the application price. Photostat copies of application forms will not be accepted.

3 Introductory Commissions Payable

A commission of ½ per cent. (plus value added tax) will be allowed to recognised banks and stockbrokers on accepted applications bearing their stamp and value added tax registration number (if applicable). This commission will not, however, be paid in respect of applications received from sub-underwriters of the Offer for Sale in the extent of their respective sub-underwriting commitments.

4 Undertakings by Applicants

The right is reserved to present all cheques on receipt and to retain letters of acceptance and excess application moneys pending clearance of applicants' cheques. Due completion and delivery of an application form, accompanied by the necessary cheque, shall constitute an undertaking that the cheque will be honoured on first presentation; a provision to that effect is contained in the application forms. Lloyds Bank International Limited reserves the right to reject or scale down any application for shares and, in particular, to reject applications which in its opinion are multiple or suspected multiple applications and applications for an undue number of shares. Applications will be irrevocable until 13th February, 1985 and may only be revoked after that date to the extent that they have not been accepted prior to receipt of notice of revocation.

5 Conditions

Formal acceptance of applications will be effected by notification of the basis of allocation to The Stock Exchange. Acceptance of applications will also be conditional on the ordinary shares and the warrants being admitted to the Official List of The Stock Exchange on or before 13th February, 1985 (subject only to acceptance). Moneys paid in respect of applications will be returned if such admission is not granted by that date and in the meantime will be retained in a separate bank account. If any application is not accepted, or is scaled down, the application moneys or the balance thereof, as the case may be, will be returned by cheque through the post (in all cases without interest) at the applicant's risk. By completing and delivering an application form each applicant will be confirming that be is not relying on any information or representation in relation to the Company other than as contained in the Offer for Sale document and accordingly be will be agreeing that no person responsible for such document shall have any liability for any such information or representation; be will also be agreeing that be is not entitled to exercise any remedy of rescission for innocent misrepresentation at any time after acceptance of his application.

6 Renounceable Letters of Acceptance

Fully paid renounceable letters of acceptance in respect of shares will be sent by post to successful applicants at their risk. It is expected that letters of acceptance will be posted to successful applicants on 12th February, 1985 and that dealings will commence on 13th February, 1985. The last date for registration of renunciation is 22nd March, 1985; the warrants will thereafter be registered and will then (but not before) be transferable separately from the ordinary shares. Share certificates and warrant certificates will be despatched by 19th April, 1985. Pending the issue of certificates, instruments of transfer of ordinary shares or of warrants will be certified against the respective registers.

7 The Ordinary Shares and the Warrants

The ordinary shares now being offered for sale rank in full for all dividends hereafter declared or paid on the ordinary share capital of the Company. Successful applicants will receive warrants conferring, in respect of every 5 ordinary shares purchased under the Offer for Sale, the right to subscribe for 1 ordinary share. The warrants will be exercisable on 31st August in any of the years 1986 to 1995 inclusive at a subscription price of 100p per share.

8 Availability of Offer for Sale Documents and Separate Application Forms

Copies of the Offer for Sale document, which comprises listing particulars with regard to the Company given in compliance with The Stock Exchange (Listing) Regulations 1984, and of the separate application form are available, free of charge, at:

The Company, 40-66 Queen Victoria Street, London EC4P 4EL

Lloyds Bank International Limited, 40-66 Queen Victoria Street, London EC4P 4EL

Laing & Cruickshank, Piercy House, 7 Copthall Avenue, London EC2R 7BE

and at the following offices of Lloyds Bank Plc:

Old Bank, 1 Market Square, Aylesbury HP20 1TD	125 Colmore Row, Birmingham B3 3AD
55 Corn Street, Bristol BS99 7LB	3 Sidney Street, Cambridge CB2 3HQ
27 High Street, Cardiff CF1 1QZ	113/115 George Street, Edinburgh EH2 4TF
234 High Street, Exeter EX4 3NL	147 High Street, Guildford GU1 3AG
6/7 Park Row, Leeds LS1 1NX	53 King Street, Manchester M60 2ES
102 Grey Street, Newcastle upon Tyne NE99 1SM	Old Market Square, Nottingham NG1 6FD
38 Blue Boar Row, Salisbury SP1 1DB	19/21 High Street, Southampton SO9 7AN
82 Mount Pleasant Road, Tunbridge Wells TN1 1RP	Registrar's Department, Goring-by-Sea, Worthing, West Sussex BN12 6DA

APPLICATION FORM

THE APPLICATION LIST FOR THE ORDINARY SHARES (WITH WARRANTS ATTACHED) NOW OFFERED FOR SALE WILL OPEN AT 10 A.M. ON THURSDAY, 7th FEBRUARY, 1985 AND MAY BE CLOSED AT ANY TIME THEREAFTER.

This application form when completed must be forwarded or handed in to Lloyds Bank Plc, Registrar's Department, Issue Section, 111 Old Broad Street, London EC2N 1AU, together with a cheque/bankers' draft for the full amount payable, so as to be received not later than 10 a.m. on Thursday, 7th February, 1985. Photostat copies of application forms will not be accepted. A separate cheque or bankers' draft must accompany each application form. Full details of the application procedure are set out above.

GERMAN SMALLER COMPANIES INVESTMENT TRUST plc

(Registered in England under Companies Acts 1948 to 1983 number 1879372)

Offer for Sale by Lloyds Bank International Limited

of 12,500,000 ordinary shares of 50p each (with warrants attached) at 100p per share payable in full on application

*Applications must be for a minimum of 200 ordinary shares of 50p each (with warrants attached) in German Smaller Companies Investment Trust plc (referred to in this application form as "shares") or for the following multiples of shares: multiples of 100 shares from 200 shares up to 1,000 shares; thereafter in multiples of 500 shares not exceeding 5,000 shares; thereafter in multiples of 1,000 shares not exceeding 20,000 shares; thereafter in multiples of 5,000 shares not exceeding 50,000 shares and thereafter in multiples of 10,000 shares.

*Number of shares applied for	**Amount enclosed at 100p per share
	£

To: LLOYDS BANK INTERNATIONAL LIMITED

I/We enclose a cheque/bankers' draft for the above-mentioned sum**, being the full amount payable on application at 100p per share for the above stated number* of shares, and I/we apply to purchase that number of shares. I/We hereby undertake and agree to accept the same, or any lesser number of shares in respect of which this application may be accepted, upon the terms of your Offer for Sale document dated 1st February, 1985 and subject to the Memorandum and Articles of Association of German Smaller Companies Investment Trust plc ("the Company"). I/We hereby authorise you to send to me/us a fully paid renounceable letter of acceptance for the number of shares in respect of which this application is accepted and/or a cheque for any moneys returnable to me/us by ordinary first class post at my/our risk to the address first given below and to procure my/our name(s) to be placed on the registers of the Company as holder(s) of the said shares so far as they have not been effectively renounced.

In consideration of Lloyds Bank International Limited agreeing that it will not, prior to 1st March, 1985, sell any shares the subject of the Offer for Sale to any person other than by one of the procedures referred to therein, I/we agree that this application shall be irrevocable until 13th February, 1985 and that this paragraph shall constitute a collateral contract between me/us and Lloyds Bank International Limited which shall become binding upon despatch by post or delivery of this application form to Lloyds Bank Plc, Registrar's Department, Issue Section, 111 Old Broad Street, London EC2N 1AU, duly completed.

I/We declare that due completion and delivery of this application form, accompanied by a cheque/bankers' draft, constitutes an undertaking that such cheque/bankers' draft will be honoured on first presentation. I/We acknowledge that any letter of acceptance and any moneys returnable may be held pending clearance of applicants' cheques and/or bankers' drafts.

Please sign here ↓

1. *Signature* ______________________

Dated ______________ February, 1985.

Please use BLOCK CAPITALS OR TYPE FOR NAMES AND ADDRESSES:

Forename(s) (in full) ....

Surname ....
(Mr., Mrs., Miss or Title)

Address ....

....

.... Post Code ....

Please pin top left corner of cheque/draft here

ALL JOINT APPLICANTS MUST SIGN AND GIVE NAMES AND ADDRESSES BELOW. In the case of a corporation this form should be signed by a duly authorised officer who should state his representative capacity. If this form is signed by power of attorney, such power of attorney or a duly certified copy thereof must accompany this form.

PLEASE USE BLOCK CAPITALS OR TYPE

2. *Signature* ....
Forename(s) (in full) .... Surname ....
(Mr., Mrs., Miss or Title)
Address .... *Post Code* ....

3. *Signature* ....
Forename(s) (in full) .... Surname ....
(Mr., Mrs., Miss or Title)
Address .... Post Code ....

4. *Signature* ....
Forename(s) (in full) .... Surname ....
(Mr., Mrs., Miss or Title)
Address .... Post Code ....

FOR OFFICE USE ONLY

1. Letter of acceptance No.
2. Shares accepted
3. Amount received on application £
4. Amount payable on shares accepted £
5. Amount returned £
6. Return cheque No.
7. Split No.
8. Registration No.
9. Share certificate No.
10. Warrant certificate No.

NO RECEIPT WILL BE ISSUED FOR THE PAYMENT ON APPLICATION, but an acknowledgement will be forwarded through the post in due course, at the risk of the applicant(s), in the form of a fully paid renounceable letter of acceptance for all the shares applied for, or in the form of a fully paid renounceable letter of acceptance for the shares applied for and accepted and a cheque for any surplus application moneys, or by the return through the post of the application moneys.

Stamp of recognised bank or stockbroker claiming commission

VAT No.

Closing prices, February 1

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
29 1/2	16 3/4	AAR	.48	2.3	16	109	21 1/8	20 3/4	21	-1/2
27 1/2	8 7/8	AGS			12	138	16	15 5/8	16	+1/8
28 3/4	12 7/8	AMCA	1	6.8		17	14 3/4	14 5/8	14 3/4	+1/8
17 7/8	13 3/8	AMF	.60	5.1	50	172	16	15 7/8	15 7/8	-1/4
38 3/4	24 3/4	AMR			6	2257	37 1/4	36 3/4	36 7/8	-1/8
20 3/8	18 3/4	AMR	pf2.18	11.		13	19 3/4	19 5/8	19 5/8	-1/8
39 3/8	27 1/2	AMR	pf2.12e	5.0		488	37 1/8	36 3/4	36 7/8	-1/4
25 7/8	22 7/8	ANR	pf2.07	11.		11	25 3/8	25 1/4	25 1/4	-1/2
23	19	ANR	pf2.12	11.		1	20	20	20	
14 3/4	8 1/2	APL			6	6	10 3/4	10 1/2	10 3/4	+1/4
83 3/4	44 3/4	ASA	3	5.8		484	51 1/4	50 1/2	50 1/2	-1 1/8
27	16	AVX	.32	1.3	10	1209	24 3/4	23 1/2	24 1/4	-1/8
48 3/4	36 7/8	AbtLab	1.20	2.6	14	3976	47 1/8	46 3/8	46 5/8	-1/8
28 3/4	18 1/2	AccoWd	s.44	1.8	20	307	36 3/8	50	50	-1/2
28 3/4	12 1/2	AcmeC	.40	2.1		127	18 3/4	18 1/2	18 5/8	
12 1/8	6 3/4	AcmeE	.32b	3.2	12	13	9 7/8	9 7/8	9 7/8	+1/8
17 7/8	15	AdaEx	2.11e	13.		110	16 3/8	16 3/8	16 3/8	+1/8
18 3/8	11 7/8	AdmMl	.32	1.8	9	16	17 1/2	17 3/8	17 3/8	
18 1/2	9 1/4	AdvSys	.81r	6.4	21	84	13	12 3/4	12 3/4	-1/4
41 1/8	25 7/8	AMD			14	3656	34 3/4	34 1/4	34 3/8	-1/2
12 3/4	6 7/8	Advest	.12	1.2		131	10 3/8	10 1/8	10 1/8	-1/4
14 1/8	8 3/4	Aeriflex			15	31	12 7/8	13	13	-1/8
40	27 3/4	AetnLf	2.34	5.6	38	3055	40	39 3/4	39 7/8	+1/8
56 3/4	52 7/8	AetL	pf5.87e	11.		5	55 1/2	55 1/2	55 1/2	+1/8
33 3/4	15 3/4	Ahmns	1.20	3.9	16	3157	31 3/8	30 1/2	30 1/2	-1 1/8
4 7/8	2 1/8	Aileen			29	27	2 1/4	2 1/4	2 1/4	
48 3/8	36 1/2	AirPrd	1.20	2.5	11	628	u48 3/4	47 7/8	48 1/4	+1/8
27 3/4	13	AirbFrt	.60	2.6	12	302	22 1/8	21 5/8	21 3/4	-1/8
2	7/8	AlMos			25	72	1 3/8	1 1/4	1 3/8	-1/8

Continued on Page 23

AMERICAN STOCK EXCHANGE COMPOSITE CLOSING PRICES

Closing prices, February 1

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
7¼	3⅞	ALu	s		21	92	5⅞	3⅝	3¾	−⅛
3¾	1⅝	ACI	wt			88	2½	2⅛	2⅛	−⅛
6	⅞	AICPh				2	1⅛	1⅛	1⅛	−⅛
15¾	8¾	AL	Lab .20	1.7	11	3	12	11⅞	11⅞	−⅛
17⅛	12	AMC	s .12	.7	12	41	17	16½	16½	−⅛
4½	2⅞	AM	Ind			6532	u5	4⅝	5	+⅞
75⅝	58	ATTFd	n5.52e	7.4		93	74⅛	74⅛	74⅛	−¼
8¼	2⅛	AcmePr			60	20	5⅞	5	5⅞	+⅛
15¾	6½	AcmeU	.32	3.0	12	18	10¾	10⅝	10⅜	+¼
17	9⅝	Action			36	288	15⅞	15½	15⅝	−⅛
9¾	3⅞	Acton				257	6⅛	4⅞	6	
3½	5-16	Acton	wt			1	11-16	11-16	11-16	
3⅝	1½	AdmRs			3	26	2⅛	2	2	
27¼	15⅞	AdRust	.14	.5	20	179	27⅝	26⅞	27⅛	+½
24⅝	15	Adobe	.28	1.6	12	41	18	17¾	17⅞	−⅛
8⅝	4½	Aeronc			7	46	6⅞	6¼	6⅞	−⅛
38⅝	28⅝	AffPb	s		16	6	38¼	38¼	38⅝	−⅛
9⅝	6	AirExp			6	86	7	6⅞	7	
14	5⅞	Aircal				34	3⅞	8½	8½	−⅛
6⅞	2⅞	Alamco			7	238	3⅞	3¾	3⅞	+⅛
75⅝	65½	Almito	n			261	73½	72¾	73¾	+¼
14	6⅞	AlbaW			9	254	8⅞	8½	8⅝	−⅛
9¾	5⅞	Alcha			1	19	6⅞	4⅞	6⅞	+¼
19	9½	Alphaln	.05	.4	15	1631	11½	11	11⅛	−⅛
1⅝	½	Altex				66	1⅛	1⅛	1⅛	
34¾	28⅝	Alcoa	pf3.75	11.		2750	34½	33½	34½	+1
25⅝	11	AlzaCp			50	334	23¼	23¼	23⅝	−½
19⅝	9½	Amdahl	.20	1.3	10	1087	15½	15⅛	15⅛	−⅛

[illegible]

X–Y–Z

12 Month High	Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
21⅞	16½	Wynne	.80	6.0	7	40	20¼	19¾	20	−⅛
49⅝	33¼	Xerox	3	7.0	17	3768	43⅛	42⅞	42⅞	−½
51	46¼	Xerox	pf5.45	11.		162	50⅞	30¼	50⅜	
33¼	18	XTRA		2.4	18	901	27⅞	26¼	27	−¼
29⅞	24	ZaleCp	1.32	4.6	8	67	27⅝	27½	27½	
22⅞	19¼	ZalepfA	.80	3.7		2	21½	21½	21½	+½
24⅞	14½	Zapata	.84	5.6	13	368	18¼	15⅞	18	−½
54⅝	28¾	Zayre	.40b	.7	15	x544	u54¾	53½	54⅝	+1
34⅝	18¼	ZenithE			8	1143	23⅝	23¼	23⅜	−⅛
27¼	18	Zero	.40	1.5	19	61	26½	25¼	25⅞	−⅛
29⅞	21½	Zurnin	1.32	4.6	11	255	29¼	28¼	38	+⅛

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NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

Continued from Page 22

[illegible]

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a–dividend also extra(s). b–annual rate of dividend plus stock dividend. c–liquidating dividend. cld–called. d–new yearly low. e–dividend declared or paid in preceding 12 months. g–dividend in Canadian funds, subject to 15% non-residence tax. i–dividend declared after split-up or stock dividend. j–dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k–dividend declared or paid this year, an accumulative issue with dividends in arrears. n–new issue in the past 52 weeks. The high-low range begins with the start of trading. nd–next day delivery. P/E-price-earnings ratio. r–dividend declared or paid in preceding 12 months, plus stock dividend. s–stock split. Dividends begins with date of split. sls–sales. t–dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u–new yearly high. v–trading halted. vi–in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd–when distributed. wi–when issued. ww–with warrants. x–ex-dividend or ex-rights. xdis–ex-distribution. xw–without warrants. y–ex-dividend and sales in full. yld–yield. z–sales in full.

WORLD STOCK MARKETS

OVER-THE-COUNTER

Nasdaq national market, closing prices, February 1

Continued on Page 25

AMERICAN STOCK EXCHANGE CLOSING PRICES

Continued from Page 23

CANADA

TORONTO

Closing prices February 1

MONTREAL

Closing prices February 1

AUSTRIA

1984/85 High	Low	Feb. 1	Price %
229	202	Credit'stalt Pfd.	229
570	312	Goesser	375
420	381	Interunfall	420
229	203	Laenderbank	225
382	300	Perlmooser	343
157	139	Steyer-Daimler	157
302	205	Veitscher Mag	351

DENMARK

1984/85 High	Low	Feb. 1	Price Knr. %
362	215	Andelsbanken	294
725	310	Baltic Skand	600
350	207	CopHandelsbank	298
855	455	D. Sukkerfab	545
535	255	Danske Bank	294
1,900	200	De Danske Luft.	1,140
212	129	East Asiatic	168
1,850	720	Forenede Brygg.	605
153	55	Forenede Damp.	94
700	358	GNT Hldg	413
725	340	I.S.S.B.	574
760	443	Jyske Bank	533
5,150	1,200	Novo Ind.	1,740
372	205	Privatbanken	246
370	263	Provinsbanken	303
300	200	Smidth (F.)	333
1,575	646	Sophus Berend	215
588	404	Superfos	453

FRANCE

GERMANY

AUSTRALIA

SWITZERLAND

NETHERLANDS

BELGIUM/LUXEMBOURG

ITALY

1984/85 High	Low	Feb. 1	Price Lire
12,750	14,105	Banca Com'le	18,950
192	89	Bastogi IRBS	163
2,930	1,418	Centrale	2,930
4,002	5,511	Credito Varesino	4,400
4,525	1,575	Fiat	2,425
59	27	Finsider	58.25
32,600	22,055	Generali (Assc.)	32,600
5,485	2,521	Invest	2,825
78,300	40,600	Italcementi	78,660
525	346	La Rinascente	585
1,492	1,112	Montedison	1,485
6,530	5,865	Olivetti	6,500
4,075	2,464	Pirelli Co	4,550
2,285	1,419	Pirelli Spa	2,285
2,655	1,535	Snia BPD	2,630
15,755	10,750	Toro Assic	15,750
11,500	8,060	do. Pref	11,495

NORWAY

1984/85 High	Low	Feb. 1	Price Kroner
185	140	Bergens Bank	166
405	215	Borregaard	375
190	139	Cristiania Bk.	181
188.5	142	Den Norsk Credit	168
127.8	105	Elkem	132
188	122.5	Kvaerner	177.[illegible]
438.5	252	Norsk Data	408
157.5	25	Norsk Hydro	155.[illegible]
272.5	178	Storebrand	227.5

SWEDEN

1984/85 High	Low	Feb. 1	Price Kronor
400	330	AGA	362
352	170	Alfa-Laval	118
480	280	ASEA (Free)	555
540	300	Astra (Free)	410
141	95	Atlas Copco	114
331	305	Cardo (Free)	222
192	114	Cellulosa	132
383	215	Electrolux B	278
390	244	Ericsson	298
570	300	Esselte	525
375	318	Mo Och Domsjo	261
247	133	Pharmacia	220
609	515	Saab Scania Free	445
425	315	Sandvik	385
425	237	Skandia	315
75	55.0	Skan Enskilda	55
223	154	SKF	181
127.5	145	St. Kopparbergs	155
237	159	Sven Handelsbn.	185
390	215	Swedish Match	248
282	189	Volvo B (Free)	282

SPAIN

HONG KONG

SOUTH AFRICA

JAPAN

SINGAPORE

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all.

WORLD STOCK MARKETS

OVER-THE-COUNTER

Stock		Sales (Hnds)	High	Low	Last	Chng

Continued from Page 24

Indices

NEW YORK — DOW JONES

	Feb. 1	Jan. 31	Jan. 30	Jan. 29	Jan. 28	1984-85 High	1984-85 Low	Since Compil'n High	Since Compil'n Low
●Industri'ls	1277.72	1286.77	1287.88	1292.62	1277.88	1292.62 (29/1/85)	1086.57 (24/7)	1292.62 (29/1/85)	41.22 (2/7/32)
H'me Bnds	74.22	73.48	74.47	74.28	74.19	74.47 (30/1/85)	64.91 (25/5)	—	—
Transport	609.94	609.50	615.04	614.37	607.17	615.84 (30/1/85)	444.08 (25/7)	616.04 (30/1/85)	12.32 (8/7/32)
Utilities	149.64	149.34	149.00	148.90	148.39	149.83 (18/12)	122.25 (15/6)	163.78 (20/4/69)	10.5 (28/4/42)
TradingVol 000's†	106.44	132,470	170,020	115,750	128,410	—	—	—	—

●Day's High 1269.77 (1293.40) low 1268.72 (1272.64)

	Jan. 25	Jan. 18	Jan. 11	year ago (approx)
Industrial div. yield %	4.72	4.91	4.94	4.43

STANDARD AND POORS

	Feb. 1	Jan. 31	Jan. 30	Jan. 29	Jan. 28	1984-85 High	1984-85 Low	Since Comp'tn High	Since Comp'tn Low
Indust'ls	199.95	201.05	200.75	200.53	198.55	201.05 (31/1/85)	187.74 (24/7)	201.05 (31/1/85)	3.52 (30/6/32)
Comp's'te	178.63	179.63	179.39	179.18	177.39	179.63 (31/1/85)	147.82 (24/7)	179.63 (31/1/85)	4.40 (1/6/23)

	Jan. 23	Jan. 16	Jan. 9	year ago (approx)
Industrial div. yield	3.85	4.00	4.15	3.76
Industrial P/E ratio	11.14	10.71	10.31	16.49
Long Gov. Bond yield	11.19	11.51	11.40	11.54

N.Y.S.E. ALL COMMON

Feb. 1	Jan. 31	Jan. 30	Jan. 29	1984-85 High	1984-85 Low
103.28	103.75	103.85	103.43	103.75 (31/1/85)	86.13 (24/7)

Rises and Falls

	Feb. 1	Jan. 31	Jan. 30
Issues Traded	2,014	2,038	2,045
Rises	647	817	975
Falls	919	791	670
Unchanged	449	430	400
New Highs	—	165	303
New Lows	—	5	2

TORONTO

	Feb. 1	Jan. 31	Jan. 30	Jan. 29	1984-85 High	1984-85 Low
Metals & Minerals	2159.3	2178.3	2178.0	2177.8	2524.4 (12/1/84)	1641.2 (25/7)
Composite	2575.4	2585.0	2594.8	2580.1	2604.0 (30/1/85)	2079.7 (24/7)
MONTREAL Portfolio	130.14	131.46	132.54	130.46	132.04 (30/1/85)	100.66 (24/8)

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day		Stocks traded	Closing price	Change on day
ATT	1,965,900	20½	+ ⅛	Uncal Cp	1,367,100	40⅞	−1⅛
Exxon	1,859,200	43⅝	+ ⅛	Southern	1,345,600	18⅝	+ ⅛
Tenneco	1,533,200	39⅛	—	Pac Gas El	1,343,000	16⅝	− ⅛
Fed Exp Cp	1,478,800	35⅝	+2⅛	P Svc Nm	1,031,900	24⅝	—
Phillips Pet	1,420,000	47⅝	− ⅛	Amer Express	927,100	41⅞	−1⅜

	Feb. 1	Jan. 31	Jan. 30	Jan. 29	1984-85 High	1984-85 Low
AUSTRALIA						
All ord. (1/1/80)	772.7	773.4	764.4	756.1	787.9 (9/1/84)	646.6 (16/6)
Metals & Minls. (1/1/80)	445.0	447.0	441.1	452.2	567.4 (6/1/84)	433.8 (7/1/85)
AUSTRIA						
Credit Aktien (2/1/62)	60.49	59.39	59.40	59.16	60.40 (1/2/85)	55.29 (15/8)
BELGIUM						
Brussels SE (1/1/80)	2114.28	2105.86	2106.57	2110.16	—	—
DENMARK						
Copehagen SE (3/1/83)	—	(u)	172.30	170.16	225.21 (20/1/84)	158.44 (8/1/85)
FRANCE						
CAC General (31/12/82)	195.7	195.8	198.6	195.8	198.6 (30/1/85)	155.6 (3/1/84)
Ind Tendance (28/12/84)	106.8	106.9	157.1	106.9	197.5 (24/1/85)	100.0 (28/12/84)
GERMANY						
FAZ Aktien (31/12/58)	387.89	388.09	386.31	385.78	402.73 (18/1/85)	317.17 (25/7)
Commerzbank (1/12/53)	1155.8	1161.5	1146.6	1147.2	1171.1 (22/1/85)	917.7 (25/7)
HONG KONG						
Hang Seng Bank (31/7/64)	1356.28	1365.02	1335.04	1338.87	1389.42 (17/1/85)	746.02 (13/7)
ITALY						
Banca Comm Ital. (1972)	264.69	265.28	265.45	259.28	264.69 (1/2/85)	192.06 (2/1/84)
JAPAN**						
Nikkei-Dow (16/5/49)	11946.96	11992.8	11988.6	11848.1	11992.8 (31/1/85)	8703.35 (23/7)
Tokyo SE New (4/1/68)	928.81	931.06	929.18	922.54	956.77 (16/1/85)	738 •• (4/1/84)
NETHERLANDS						
ANP-CBS General (1970)	197.8	196.9	165.0	192.2	197.0 (1/2/85)	146.8 (23/7)
ANP-CBS Indust (1970)	156.8	156.9	155.1	153.8	157.7 (23/1/85)	119.7 (19/6)
NORWAY						
Oslo SE (4/1/83)	329.28	333.45	333.17	326.64	333.45 (31/1/85)	221.67 (4/1/84)
SINGAPORE						
Straits Times (1966)	851.25	833.51	821.60	818.39	1671.9 (9/2)	784.4 (16/1/85)
SOUTH AFRICA						
Gold (1958)	—	819.6	(u)	814.7	1099.8 (19/11)	758.1 (24/1/84)
Industrial (1958)	—	875.1	(u)	880.4	1105.3 (26/5)	853.5 (19/9)
SPAIN						
Madrid SE (28/12/84)	119.28	114.88	115.28	115.92	115.28 (1/2/85)	100.00 28/12/84
SWEDEN						
Jacobson & P (11/58)	1481.56	1447.70	1432.11	1429.65	1594.5 (3/2)	1502.99 (22/11)
SWITZERLAND						
Swiss BankCpn. (31/12/58)	416.1	414.5	414.3	412.2	414.5 (31/1/85)	354.5 (25/7)
WORLD						
Capital Intl. (1/1/70)	—	157.1	156.9	195.7	197.1 (1/2/85)	163.2 (14/12)

** Saturday January 26: Japan Nikkei-Dow 11,736.5. TSE 816.65.

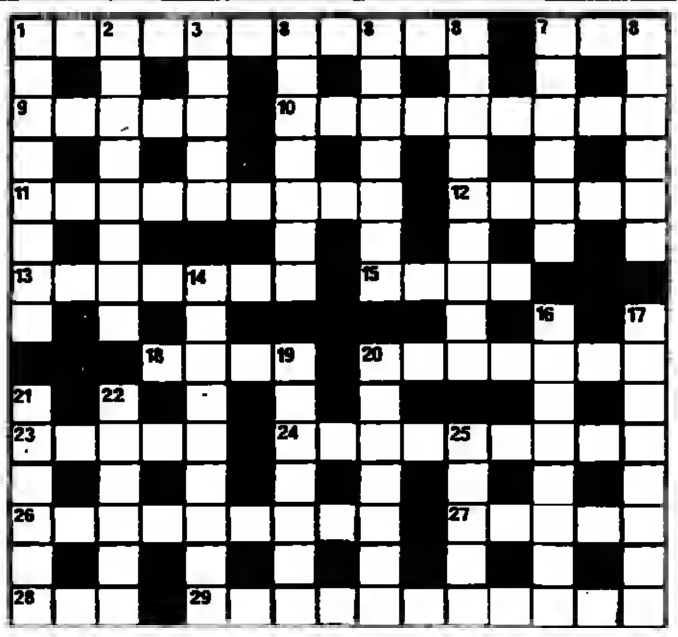
Base values of all indices are 100 except Australia All Ordinary and Metals—500, NYSE All Common—50; Standard and Poors—10; and Toronto Composite and Metals—1,000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Exclusive bonds. ‡ 400 Industrials. § 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. (u) Unavailable.

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

INSURANCES

F.T. CROSSWORD PUZZLE No. 5,635



ACROSS

1 To make progress one has to be successful and up-to-date (3,2,4,2)
7 The place to drink during Prohibition? (3)
9 The last character to return a diamond ring (5)
10 Frenchwoman dragged outside and beaten up (9)
11 Scotland's pitch can be used as a guide (5,4)
12 Being about the best rating in the craft can go to one's head (5)
13 They collect what is due from buyers without hesitation (7)
15 Fell back to make space (4)
18 Pause on this note, by the way (4)
20 Break a saucer in pieces (7)
23 Starts fight with officer commanding American centre (5)
24 Insures it out of habit (5,4)
26 Probably the sort of friend to take a blow badly to heart (9)
27 An American is commonly at home most of the month (5)
28 It's not far to the bar (3)
29 Clothing which is part of the county tradition? (6,5)

DOWN

1 Nice jug in well-preserved condition (4, 4)
2 The introduction of an alternative is a point to think about (8)
3 It's without water and hot down under (5)
4 Attributes required to build first motorway roundabout (7)
5 Make monotonous sound with instrument (7)
6 Badly organised yet went on to be majority once (6-3)
7 Lay off everyone inside (8)
8 A colour-sensitive picture again? (6)
14 Waste passes obviously through having no sweeper moving about (4,5)
16 Building plot? (3-2,3)
17 How to catch a rattler? (8)
19 Where one gets blanket approval for experiments? (4,3)
20 Support no back-sliding or improper behaviour (5-2)
21 A very noisy bearing causes concern (6)
22 Went up for degree with daughter (6)
25 To make the animal sound would almost get round the point (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

INSURANCE, OVERSEAS & MONEY FUNDS

Liberty Life Assurance Co. Ltd
Station Rd, New Barnet 01-440 8210
Fund Managers: Touche Remnant & Co

Gilt Sec S	26.5	28.0	
Silver Cons	22.6	23.5	
Fixed Yield	19.5	20.6	-1.1
Deposit Fund	15.0	16.9	0.1
Managed	20.9	22.1	
International	70.0	30.4	
Property	17.0	17.9	
Pacific	22.2	23.4	-0.2
Equity	16.1	11.0	-0.4
Special Sits	25.1	26.5	-0.5
Intl Currency	14.0	14.8	-0.1
Index Linked Secs.	10.9	11.5	-0.2
American	23.9	25.2	+1.2

Life Assur. Co. of Pennsylvania
8, New Rd, Chatham, Kent. Medway 812348

LACOP Units	14.83	13.571	

Lloyds Life Assurance
20, Clifton St, EC2A 4HX. 01-920 0202

Multi Gwth Jan 6	£305.91			
Multi Gwth "A" Jan 6	276.2	290.8		
Op 8 Prop Jan 31	263.6	277.5		
Op 8 Equity Feb 1	373.9	393.6	+1.9	
Op Hy Jan 31	266.1	280.2		
Op 8 Man Jan 31	346.6	364.9		
Op 8 Dep Jan 31	201.3	211.9		
Op 8 Bond Jan 31	187.9	197.8		11.82
Op 8 Inc Dist Jan 31	143.4	150.9		8.040
Op 8 Int Man Jan 31	215.1	226.5		
Op 8 US$ Jan 31	169.4	178.4		12.12
Pens 8 Pr Ac Jan 31	347.7	366.1		
Pens 8 Eq Ac Jan 31	1067.6	1123.8		
Pens 8 FI Ac Jan 31	386.4	406.8		
Pens 8 Md Acc Jan 31	617.9	650.5		
Pens 8 Dp Acc Jan 31	322.1	339.1		
Pens8Gart Globe Jan 31	114.1	120.2		
Pens 8 Gart 8A Jan 31	107.2	112.8		
Pens8GartP Jan 31	121.8	128.3		

For Pensions Capital Units please ring extension 319.

Britannia Funds—Series A

Am Smlr Co's	178.0	[illegible]	+4.0
Am Spec Sits	163.9	[illegible]	-0.6
Commodity	84.7	[illegible]	+0.4
Extra Inc	116.6	[illegible]	+0.2
Far East	119.6	[illegible]	+1.7
Fi Secs	157.8	[illegible]	-1.1
Gold & Gen	72.4	[illegible]	-0.7
Inc Growth	159.1	[illegible]	+0.1
Intl Fund	123.4	[illegible]	+0.4
Japan Perf	160.2	[illegible]	+0.6
Japan Smlr Cos	85.5	[illegible]	-0.8
Nat High	153.5	[illegible]	
Prop Shares	119.7	[illegible]	-0.3

National Provident Institution
48 Gracechurch St EC3P 3HH. 01-623 4200

Managed	199.5	210.1	+1.1
UK Equity	228.6	240.7	+0.2
Overseas Eq	208.0	214.0	0.4
American	211.2	222.4	+0.1
Far East	181.0	141.4	1.1
Property	117.5	118.5	
Fixed Int	159.1	167.5	-0.3
Indexed Gilt	105.9	111.5	0.1
Deposit	114.1	120.2	

Pension Fund Prices

Man Initial	201.9	212.5	+0.2
Man Acc	224.0	236.71	+0.1
UK Eq Initial	215.0	227.5	+0.7
UK Eq	237.4	249.9	+0.7
Overseas Eq Initial	237.1	244.4	+0.3
Overseas Eq	267.7	281.8	+0.6
American Initial	242.7	255.5	+0.4
American	267.9	282.1	+0.4
Far East Initial	235.7	246.0	-2.3
Far East	258.6	272.3	-2.5
Prop Initial	108.5	114.0	-0.1
Prop	119.6	125.9	
Fixed Int. Initial	142.5	150.0	-0.3
Fixed Int.	156.7	165.0	+0.3
Indexed Gilt Initial	99.2	104.5	-0.1
Indexed Gilt	109.6	113.4	+0.2
Deposit Initial	112.9	118.9	
Deposit	125.2	131.8	+0.1

NPI Pensions Management Ltd.

Managed Fund	562.0	576.4	+22.5

Prices Jan 2. Next dealing March 1

New Zealand Insurance PLC
110/335, Baxter Avenue, Southend. (0702) 344955

Kiwi Key (Managed)	372.9	384.4	
UK Equity	172.2	176.0	+1.0
American	274.3	288.8	+0.3
Pacific	392.0	412.6	-0.3
Property	153.2	161.3	
Gilt	176.3	185.6	-0.7
High Int. Equity	158.7	167.1	+1.1
High Int. Fxd. Int.	102.2	107.4	+0.8
Deposit	150.2	158.1	
Index-Linked Gilt	102.1	107.5	

Norwich Union Insurance Group
PO Box 4, Norwich NR1 3NG. 0603 22200

NUIG (Managed Funds) Ltd.

Managed Fund	571.5	540.4	+0.4
Equity Fund	972.7	1,023.9	+2.7
Property Fund	266.6	280.6	+0.1
Fixed Int. Fund	279.6	294.3	-1.1
Deposit Fund	174.8	184.0	+0.1

Norwich Union Life Insurance Society Pensionmaster & Unit-Linked Plus

Fixed Interest	183.9	193.5

OFFSHORE AND OVERSEAS

World Wide Growth Management
10a, Boulevard Royal, Luxembourg

Worldwide Gth Fd	$11.80	

Inv. Adv., M. & G. Inv. Mngt., Ltd., London.

Wren Commodity Management Ltd.
30, St George's St, Douglas IoM. 0624 25015

Wren Com. Fund	12.7	13.2	3.10
Diverse Fund	58.8	61.2	1.70
Precious Metal Fund	71.4	74.3	8.30
Vanguard Cmdy. Fd	19.8	20.4	0.00
Financial Futures Fd.	32.5	33.8	

Yamaichi Dynamic Mngt Co SA
10A Boulevard Royal, Luxembourg

Dynamic Gwth Fd	$8.94	+0.131

Money Market Trust Funds

	Nom	Apr	Int Cr	Notice
The Money Market Trust 63 Qn Victoria St, EC4N 4ST. 01-236 0952				
Call Fnd	13.56	14.08	6-mth	Call
7-day Fnd	12.48	12.95	6-mth	7-day
Oppenheimer Money Management Ltd 66 Cannon St, EC4N 6AE. 01-236 1425				
Call Fnd	13.85	14.32	6-mth	Call
7-day Fund	12.03	12.40	6-mth	7-day
Money Mngt. Acct.	13.50	14.19	3-mth	Call
Dollar	7.57	7.50	6-mth	2-day

Money Market Bank Accounts

	Nom	APR	Int Cr	Notice
Aitken Hume 30 City Road, EC1Y 2AY. 01-638 6070				
Treasury Acc	12.500	13.10	Qtr	Call
Mth. Int. Chq	12.25	12.96	Mth	Call
Bank of Scotland 38 Threadneedle St, EC2P 2EH 01-628 8060				
Cheque Acc.	12.30	13.02	Mth	Call
Barclays Prime Account PO Box 125, Northampton 0604 252891				
High Int. Cheque	12.50	13.10	Qtr	Call
Britannia Grp of Investment Companies 29 Finsbury Circus, EC2M 5QL 01-588 2777				
Cater Allen	13.50	14.36	Mth	Call
Charterhouse Japhet plc 1 Paternoster Row, EC4M 7DH 01-248 3999				
Sterling	13.25	14.005	Mth	Call
U.S. Dollar	7.50	7.763	Mth	Call
German Marks	5.0	5.116	Mth	Call
Swiss Francs	2.0	2.01A	Mth	Call
Japanese Yen	5.0	5.116	Mth	Call
Co-operative Bank 78-80 Cornhill EC3 01-626 6543 Ex 464				
Under £1,000	12.00	12.55	Qtr	Call
Over £1,000	14.00	14.75	Qtr	Call
Dartington & Co Ltd Dartington, Totnes, Devon TQ9 6JE 0803 862271				
Money Mkt Acc.	13.50	14.20	Qtr	Call
Henderson/Bank of Scotland 38 Threadneedle St EC2P 2EH 01-628 8060				
Money Mkt. Cheque Acc.	12.30	13.02	Mth	Call
Lombard North Central PLC 17 Bruton St, W1A 3DH. 01-409 3434				
Notice Dep	12.73	13.15	Rate	14-day
M & G/Kleinwort Benson 91-99 New London Rd, Chelmsford. 0245 51661				
High Int Cheque Acc.	13.50	14.40	Daily	Call
Midland Bank plc PO Box 2, Sheffield. 0142 20999 Ext 8738				
High Int Chq	12.60	13.20	Qtr	Call
Provincial Trust (formerly Choulartons) 30 Ashley Rd, Altrincham, Cheshire, WA1 2DW 061-928 9011				
Cheque Acc	14.00	14.93	Mth	Call
Save & Prosper/Robert Fleming 28 Western Rd, Romford RM1 3LB. 0708 66966				
High. Int. Bk. Acc	13.10	14.00	Daily	Call
Premier Acc.	13.10	15.00	Daily	Call
Tyndall & Co 29-33 Princess Victoria St, Bristol BS8 4BX 0272 732241				
Demand Acc	13.01	13.66	Qtr	Call
Money Acc.	12.01	12.55	Qtr	Chq7
J. Henry Schroder Wagg & Co Ltd Enterprise House, Portsmouth 0705 827733				
Special Acc.	13.50	14.37	Mth	Call
Over £10,000	13.75	14.65	Mth	Call

NOTES:—Interest rates given both as a nominal rate and an annual percentage rate adjusted for frequency of interest credit.

NOTES

Prices are in pence unless otherwise indicated and those designated $ with no prefix to U.S. dollars. Yields % (shown in last column) allow for all buying expenses. a Offered prices include all expenses. b Today's prices. c Yield based on offer price. d Estimated. e Today's opening price. h Distribution free of UK taxes. p Periodic premium insurance plans. s Single premium insurance. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. z Previous day's price. ¶ Guernsey gross. ‡ Suspended. ♦ Yield before Jersey tax. † Ex-subdivision. ‡‡ Only available to charitable bodies. ♦ Yield column shows annualised rates of NAV increase.

LONDON SHARE SERVICE

BRITISH FUNDS

Interest Due		Stock	Price £	Last xd	Yield Int.	Yield Red.
"Shorts" (Lives up to Five Years)						
22 Sep	22 Mar	Exch. 12pc Cnv. '85	99 11/16	6.8	12.04	14.26
21 Nov	21 May	Treas 3pc 1985	97½	15.10	11.51	11.87
15Jan	15Jul	Treas 11½pc 1985	99⅞	10.12	11.51	11.83
3 Mar	3 Sep	Treas 8¼pcCnv '85	98¼xd	25.1	8.91	12.00
22 May	22 Nov	Exch. 12¼pc 1985	100 3/16	16.10	12.21	11.72
25 Aug	25 Feb	Exch. 11¾pc '86	100¼xd	21.1	11.74	11.67
11Oct	11Apr	Treas. 10pcCnv 1986	98¼	4.9	10.19	11.70
19 Nov	19 May	Treas 3pc 1986	93½	15.10	3.21	8.43
19 Nov	19 May	Exch. 10½pc Cv '86	98⅝	15.10	10.65	11.66
12Dec	12Jun	Treas 12pc 1986	100 5/16	5.11	11.96	11.70
10 Jan	10 Jul	Treas 8¾pc 1984-86‡‡	96½	4.12	8.81	11.22
29 Apr	29 Oct	Exch. 14pc 1986	103¾	24.9	13.53	11.65
21 May	21 Nov	Exch. 2½pc 1986	88¾	15.10	2.82	9.44
22Jul	22Jan	Exch. 13¼pc 1987	102¾	17.12	12.90	11.63
10 Aug	10 Feb	Treas 10¼pcCv '87	97⅛xd	4.1	10.50	11.61
24Aug	24Feb	Exch 2½pc 1987	86⅝xd	18.1	2.89	9.86
6Oct	6Apr	Exch. 10½pc 1987	97 11/16	3.9	10.75	10.71
1 Nov	1 May	Funding 6½pc '85-87‡‡	90⅝	25.9	7.17	11.35
12Dec	12Jun	Treas. 10pc 1987	96⅝	5.11	10.35	11.66
14Jan	14Jly	Treas 3pc 1987	85¾	10.12	3.50	9.70
3May	3Nov	Treas. 12pc 1987	100 11/16	27.9	11.92	11.66
26 Jul	26 Jan	Treas 7¾pc 1985-88‡‡	91 13/16	20.12	8.44	11.05
10Nov	10May	Exch 10½pc '88	96½	4.10	10.88	11.81
14Dec	14Jne	Treas 9¾pc Cv '88	94 5/16	7.11	10.31	11.74
1Jan	1Jul	Transport 3pc '78-88	81½	26.11	3.68	9.45
25 Apr	25 Oct	Treas. 9½pc '88	93¼	18.9	10.19	11.77
22 Aug	22 Feb	Treas 11½pc 1989	99¼xd	16.1	11.57	11.71
18 Oct	18 Apr	Treas 9½pc Cnv. '89	92 5/16	11.9	10.26	11.76
14Dec	14Jun	Treas 10½pc 1989	95⅞	7.11	10.95	11.73
1Feb	1Aug	Exch 10pc 1989	[illegible]	27.12	10.65	11.80

Five to Fifteen Years

[illegible]

Over Fifteen Years

[illegible]

Undated

[illegible]

Index-Linked

[illegible]

INT. BANK AND O'SEAS GOVT STERLING ISSUES

[illegible]

CORPORATION LOANS

[illegible]

COMMONWEALTH & AFRICAN LOANS

[illegible]

LOANS

Building Societies

[illegible]

Public Board and Ind.

[illegible]

Financial

[illegible]

FOREIGN BONDS & RAILS

[illegible]

AMERICANS

[illegible]

AMERICANS—Cont.

[illegible]

CANADIANS

[illegible]

BANKS, HP & LEASING

[illegible]

Hire Purchase, Leasing, etc.

[illegible]

BEERS, WINES & SPIRITS

[illegible]

BEERS, WINES—Cont.

[illegible]

BUILDING, TIMBER, ROADS

[illegible]

CHEMICALS, PLASTICS

[illegible]

DRAPERY AND STORES

[illegible]

DRAPERY & STORES—Cont.

[illegible]

ELECTRICALS

[illegible]

ENGINEERING

[illegible]

ENGINEERING—Continued

[illegible]

FOOD, GROCERIES, ETC

[illegible]

HOTELS AND CATERERS

[illegible]

HOTELS—Continued

[illegible]

INDUSTRIALS (Miscel.)

[illegible]

INDUSTRIALS—Continued

Dividends Paid		Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Oct.	Apr	Magnolia Group	48	17.9	2.5	3.2	7.4	4.7
—	—	Mainmet Hldgs 10p	42	—	—	—	—	—
Apr.	Oct.	Man. Ship Can £1	259	27.2	—	—	—	—
Oct	Apr	Marley	93	13.0	5.5	3.5	3.0	13.4
Feb.	Oct.	Marling Ind. 10p	58	24.12	†3.2	2.5	4.9	10.5
Dec	June	Marshall L'ey. 'A'	40	1.10	†d3.0	5.6	3.2	6.8
Jan.	July	Marshall's Universal	72	12.11	†1.2	3.6	—	(7.1)
June	Dec	Do. 7½pcCnRedPf £1	82	10.12	H1.75	—	3.5	21.7
Nov	May	Martin-Black	226	5'79	7½%	—	13.1	—
—	—	Mathesons 7¼%	£85	30.6	Q7¼%	2.3	19.2	—
Jan.	June	Metal Box £1	415	26.11	†15.0	3.2	5.2	6.7
Nov.	June	Metal Closures	151	17.9	6.3	2.3	6.0	(8.4)
—	—	Metal Sciences 2½p	12	—	—	—	—	—
July	Jan	Midland Mans	90	26.11	4.0	1.8	6.3	11.4
Jan	May	Mitchell Cotts	83	26.11	4.0	1.5	6.9	11.8
Jan.	July	Morgan Crucible	195	12.11	†7.5	1.2	5.5	(19.7)
May		Morris (W) F.A. 20p	24½	—	—	—	—	—
Jan.	Aug.	Moss (Robt.) 10p	100	26.11	bg0.5	4.0	2.9	23.5
May	Nov	N M W Computers	275	15.10	†12.5	2.5	3.6	14.5
Mar.	Sept.	Nash Inds.	40	14.1	6.0	3.0	3.1	15.3
Oct.	April	Neil & Spencer 10p	45	3'81	2.5	1.5	8.9	9.2
Jan	July	Newman Industries	16	12'79	—	—	—	19.4
Jan July		Do. 10pc Cu.Cnv.Pf.	22	12.11	10%	—	—	(9.0)
April	Oct	Nolton	48	26.11	g1.1	4.5	6.5	—
Jan.	Aug.	Norcros	166	24.12	†7.5	2.4	3.3	8.1
Oct.	April	Nu-Swift 5p	58	29.10	†2.0	3.2	6.5	8.8
Feb.	Aug.	Oakwood Grp.	90xd	28.1	4.5	♦	5.9	7.6
Jan.	June	Office & Elect	152	29.10	7.5	4.2	7.1	♦
—		Oldacre 20p	185xd	28.1	u4.0	2.6	7.0	7.0
May	Nov	Oriflame Intl SA	625	1.10	†053c	2.2	5.4	9.3
Jan.	June	Ovenstone 12½c	15	22.11	†Q1.5c	2.2	7.6	6.0
May	Nov.	Oxalid 9pc Cnv 87-92	£170	15.10	Q9%	—	19.3	—

LEISURE—Continued

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PROPERTY

PROPERTY—Continued

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INVESTMENT TRUSTS—Cont.

Finance, Land, etc

OIL AND GAS

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

O.F.S.

Diamond and Platinum

Central African

MINES—Continued

Finance

Australians

Tins

Miscellaneous

Dividends Paid		Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's
—		Anglo Utd. Dev.	46	—	—	—	—
—		Centennial Munf'k.	280	26.3	—	—	—
—		Colby Res Corp.	70	—	—	—	—
Aug.	Feb.	Cons. Murch. 10c	475	14.1	†Q100c	1.4	8.9
—		Emex Int. Ir10p	33	—	—	—	—
Sept	Feb	Hampton Areas 10p	190	24.12	3.75	2.1	2.6
—		Highwood Res.	180	—	—	—	—
May	Aug	Homestake Mining $1	£21	31.10	Q20c	—	0.9
—		McFinley Red Lake	235	—	—	—	—
—		Musto Explorations	240	—	—	—	—
—		New Sabina Res C$1	25	—	—	—	—
October		Northgate C$1	318	9'77	—	—	—
Jan.	July	RTZ	645	29.10	†18.0	2.7	4.0
Jan	July	Do. 9½pcLn '95-2000	£139	29.10	Q9½%	35.4	6.9
—		Tara Explor $1	£12½	—	—	—	—

NOTES

Unless otherwise indicated, prices and net dividends are in pence and denominations are 25p. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures. P/Es are calculated on "net" distribution basis, earnings per share being computed on profit after taxation and unrelieved ACT where applicable; bracketed figures indicate 10 per cent or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution; this compares gross dividend costs to profit after taxation, excluding exceptional profits/losses but including estimated extent of offsettable ACT. Yields are based on middle prices, are gross, adjusted to ACT of 30 per cent and allow for value of declared distribution and rights.

- ● "Tap Stock".
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents on application.
- ♦ Figures or report awaited.
- ♥ Not officially UK listed; dealings permitted under Rule 535(4)(a).
- ✤ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- †† Dealt in under Rule 535(3).
- # Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ♦ Merger bid or reorganisation in progress.
- ♯ Not comparable.
- ♦ Same interim: reduced final and/or reduced earnings indicated.
- § Forecast dividend; cover on earnings updated by latest interim statement.
- ‡ Cover allows for conversion of shares not now ranking for dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ‖ No par value.

B.Fr. Belgian Francs. Fr. French Francs. ## Yield based on assumption Treasury Bill Rate stays unchanged until maturity of stock. a Tax free. b Figures based on prospectus or other offer estimate. c Cents. d Dividend rate paid or payable on part of capital, cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend, P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Subject to local tax. x Dividend cover in excess of 100 times. y Dividend and yield based on merger terms. z Dividend and yield include a special payment: Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Minimum tender price. F Dividend and yield based on prospectus or other official estimates for 1984-85. G Assumed dividend and yield after pending scrip and/or rights issue. H Dividend and yield based on prospectus or other official estimates for 1984. K Figures based on prospectus or official estimates for 1984. M Dividend and yield based on prospectus or other official estimates for 1985-86. N Dividend and yield based on prospectus or other official estimates for 1985. P Figures based on prospectus or other official estimates for 1983. R Gross. T Figures assumed. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

REGIONAL & IRISH STOCKS

The following is a selection of Regional and Irish stocks, the latter being quoted in Irish currency.

Albany Inv 20p	90	....	Arnott	147	....
Craig & Rose £1	£11	....	CPI Hldgs	57	....
Finlay Pkg. 5p	60	....	Carrol Inds.	99	....
Higsons Brew	100	....	Dublin Gas	65	....
Holt (Jos) 25p	640	....	Hall (R. & H.)	44	....
IoM Stm. £1	130	+5	Heiton Hldgs.	16	....
IRISH			Irish Ropes	35	....
Exch. 12% 1985	£99	....	Jacob (W.& R.)	65	....
Nat. 9¾% 84/89	£84	....	TMG	100	+25
Fin. 13% 97/02	£99⅛	....	Unidare	83	....

OPTIONS — 3-month call rates

Industrials	p				
Allied-Lyons	15	GKN	16	Turner Newall	9
BAT	30	Hanson Tst.	22	Unilever	80
BOC Grp.	24	Hawker Sidd	38	Vickers	18
BSR	15	Hse of Fraser	28	**Property**	
Babcock	13	ICI	50	Brit Land	14
Barclays Bank	42	'Imps'	14	Cap Counties	13
Beecham	80	Jaguar	18	Land Secs	24
Blue Circle	46	Ladbroke	20	MEPC	30
Boots	10	Legal & Gen	42	Peachey	24
Bowaters	16	Lex Service	32	Samuel Props	14
Brit Aerospace	34	Lloyds Bank	42	Sterling Guar.	5½
Brit. Telecom	11	Lucas Inds.	24	**Oils**	
Brown (J.)	3	Marks & Spcr	10	Brist. Oil & Min	4½
Burton Ord	32	Midland Bk	33	Brit Petroleum	38
Cadburys	14	NEI	9	Burmah Oil	19
Comm Union	13	Nat West Bk	54	Charterhall	6
Courtaulds	11	P & O Dfd.	24	Premier	6
Debenhams	19	Plessey	20	Shell	55
Distillers	24	Polly Peck	25	Tricentrol	22
Dunlop	5	Racal Elect	24	Ultramar	22
FNFC	7	RHM	10	**Mines**	
Gen Accident	42	Rank Org Ord	24	Charter Cons	21
Gen Electric	20	Reed Intnl	50	Cons Gold	42
Glaxo	90	Sears	7	Lonrho	14
Grand Met	26	TI	18	Rio T Zinc	60
GUS 'A'	55	Tesco	8		
Guardian	50	Thorn EMI	42		
		Trust Houses	12		

A selection of Options traded is given on the London Stock Exchange Report page.

"Recent Issues" and "Rights" Page 14

CURRENCIES, MONEY and CAPITAL MARKETS

FINANCIAL FUTURES

LONDON

THREE-MONTH EURODOLLAR $1m points of 100%

	Close	High	Low	Prev
March	90.86	91.03	90.86	91.17
June	90.29	90.52	90.22	90.68
Sept	89.75	90.00	89.75	90.15
Dec	89.30	89.52	89.30	89.72
March	88.92	—	—	89.34

Est volume 10,402 (5,248)
Previous day's open int 13,271 (12,779)

THREE-MONTH STERLING £500,000 points of 100%

	Close	High	Low	Prev
March	87.87	88.06	87.70	88.16
June	88.68	88.90	88.65	88.98
Sept	89.05	89.05	88.90	89.18
Dec	89.30	89.35	89.20	89.00
March	89.75	89.70	89.25	89.50

Est volume 1,787 (3,068)
Previous day's open int 5,651 (5,554)

20-YEAR 12% NOTIONAL GILT £50,000 32nds of 100%

	Close	High	Low	Prev
March	103-08	103-29	103-08	104-06
June	103-08	—	—	104-02
Sept	105-23	—	—	107-17
Dec	106-14	—	—	107-08
March	106-03	—	—	106-29

Est volume 2,871 (2,872)
Previous day's open int 5,500 (5,755)
Basis quote (clean cash price of 13¼% Treasury 2003 less equivalent price of near futures contract) —10 to par (32nds)

STERLING £25,000 $ per £

	Close	High	Low	Prev
March	1.1235	1.1237	1.1210	1.1245
June	1.1155	1.1155	1.1140	1.1165
Sept	1.1108	—	—	1.1120

Est volume 842 (851)
Previous day's open int 3,856 (4,757)

DEUTSCHE MARKS DM 125,000 $ per DM

	Close	High	Low	Prev
March	0.3160	0.3163	0.3154	0.3166

Est volume 33 (8)
Previous day's open int 187 (187)

SWISS FRANCS SwFr 125,000 $ per SwFr

	Close	High	Low	Prev
March	0.3722	—	—	0.3751
June	0.3754	—	—	0.3763

Est volume nil (n6)
Previous day's open int 121 (111)

JAPANESE YEN Y12.5m $ per Y100

	Close	High	Low	Prev
March	0.3910	0.3910	0.3905	0.3933
June	0.3936	0.3936	6.3932	—

Est volume 106 (nil)
Previous day's open int 116 (116)

FT-SE 100 INDEX £25 per full index point

	Close	High	Low	Prev
March	126.60	127.75	126.45	127.75
June	127.00	127.35	127.00	128.00
Sept	127.40	—	—	128.40

Est volume 451 (461)
Previous day's open int 1,207 (1,132)

U.S. TREASURY BONDS 8% $100,000 32nds of 100%

	Close	High	Low	Prev
March	72-14	73-02	72-14	73-13
June	71-13	72-00	71-20	72-11

Est volume 2,880 (2,280)
Previous day's open int 2,072 (1,847)

CHICAGO

U.S. TREASURY BONDS (CBT) 8% $100,000 32nds of 100%

	Latest	High	Low	Prev
March	90.78	91.08	90.76	91.07
June	90.28	90.50	90.22	90.57
Sept	89.72	89.96	89.66	90.03
Dec	89.26	89.50	89.20	89.57
March	88.88	89.10	88.83	89.19
June	88.56	88.67	88.48	88.88
Sept	88.27	88.39	88.19	88.59

U.S. TREASURY BILLS (IMM) $1m points of 100%

	Latest	High	Low	Prev
March	91.73	91.85	91.71	91.90
June	91.33	91.47	91.29	91.54
Sept	90.86	91.08	90.82	91.06
Dec	90.46	90.62	90.41	90.88
March	90.12	90.15	90.08	90.32
June	89.85	90.00	89.80	90.04
Sept	89.61	89.76	89.58	89.81
Dec	89.38	—	89.36	89.58

CERT. DEPOSIT (IMM) $1m points of 100%

	Latest	High	Low	Prev
March	91.10	91.27	91.06	91.36
June	90.62	00.76	90.54	90.89
Sept	90.08	00.10	90.03	90.38
Dec	89.62	89.67	89.58	89.91

THREE-MONTH EURODOLLAR (IMM) $1m points of 100%

	Latest	High	Low	Prev
March	72-14	72-29	72-10	73-04
June	71-12	71-25	71-08	72-03
Sept	70-19	70-31	70-18	71-08
Dec	69-31	70-08	69-24	70-19
March	69-13	69-16	69-11	69-31
June	68-30	69-01	68-28	69-14
Sept	68-17	68-20	68-15	68-31
Dec	68-06	68-09	67-31	68-18
March	67-28	67-30	67-23	68-06
June	67-19	67-20	67-13	67-27

STERLING (IMM) $e per £

	Latest	High	Low	Prev
March	1.1145	1.1250	1.1125	1.1155
June	1.1070	1.1190	1.1065	1.1120
Sept	1.1025	1.1125	1.1010	1.1076
Dec	1.1000	1.1090	1.1005	1.1050

GNMA (CBT) 8% $100,000 32nds of 100%

	Latest	High	Low	Prev
March	69-04	69-18	69-04	69-21
June	68-15	68-26	68-10	69-00
Sept	67-27	68-01	67-27	68-12
Dec	67-08	—	—	67-28
June	66-10	66-10	66-10	66-27
Sept	65-29	66-03	65-29	66-15

WEEKLY CHANGE IN WORLD INTEREST RATES

	Feb. 1	change		Feb. 1	change
LONDON			**NEW YORK**		
Base rates	14	+2	Prime rates	10½	Unch'd
7 day Interbank	14	+2	Federal funds	8¾	+⅛
3mth Interbank	12¾	+1/16	3 Mth. Treasury Bills	8.18	+0.55
Treasury Bill Tender	11.8160	+0.2918	6 Mth. Treasury Bills	8.30	+0.43
Band 1 Bills	13⅞	+2	3 Mth. C D	8.55	+0.45
Band 2 Bills	13¾	+2	**FRANKFURT**		
Band 3 Bills	13⅝	+2	Lombard	0.0	+0.5
3 Mth. Treasury Bills	12⅛	+⅛	One Mth. Interbank	5.625	—0.150
1 Mth. Bank Bills	13⅛	+1⅛	Three month	5.825	Unch'd
3 Mth. Bank Bills	12¼	+1⅛	**PARIS**		
TOKYO			Intervention Rate	10¼	Unch'd
One month Bills	0.21875	—0.0625	One Mth. Interbank	10½	+⅛
Three month Bills	6.34375	Unch'd	Three month	10¼	+⅛
BRUSSELS			**MILAN**		
One month	10⅞	+⅞	One month	15½	+⅛
Three month	10¾	Unch'd	Three month	16⅛	+⅛
AMSTERDAM			**DUBLIN**		
One month	6⅛	+⅛	One month	14⅞	Unch'd
Three month	6⅛	+⅜	Three month	14⅝	—⅛

London—band 1 bills mature in up to 14 days, band 2 bills 15 to 33 days, and band 3 bills 34 to 63 days. Rates quoted represent Bank of England buying or selling rates with the money market. In other centres rates are generally deposit rates in the domestic money market and their respective changes during the week. Band 4 bills 11¾.

FOREIGN EXCHANGES

Sterling and dollar firm

BY COLIN MILLHAM

Sterling ended the week slightly firmer than it began, but this was more the result of optimism about the majority agreement to a new price structure by ministers meeting in Geneva from the Organisation of Petroleum Exporting Countries, rather than the somewhat unfortunate rise in London interest rates.

Rates no sooner went up than they appeared to be coming back down again, although by Friday the mood of euphoria around mid-week had been tempered, and the market was no longer expecting a cut back in bank base rates before tomorrow's mid-January money supply figures.

On Thursday money market rates were clearly discounting a reduction of 1½ per cent to 12½ per cent in base rates, but by Friday it appeared the reduction was more likely to be 1 per cent to 13 per cent.

The money supply figures are not expected to be too good, but are unlikely to prevent some downward adjustment in the rate structure.

The Opec meeting at first caused considerable concern in the market as the representative from the United Arab Emirates walked out, but then helped underpin the pound when the major oil producers within the organisation reached agreement.

Sterling touched its peak of $1.1305-1.1315 on Thursday, but fell back slightly on Friday to close at $1.1240-1.250, a rise of 1.40 cents on the week.

Attention was generally focused on the pound, but the dollar moved up quietly, and by the end of the week broke through DM 3.18 and was threatening DM 3.20 in New York, despite a rise in the German Bundesbank Lombard rate by ½ per cent to 8 per cent, and an increase in the Dutch discount rate by a similar amount to 5½ per cent on Thursday.

There was a suspicion the Federal Reserve may have tightened its monetary stance as the Federal funds overnight rate hovered around 8½ per cent, following a higher than expected rise of $4.7bn in weekly U.S. M1 money supply.

This was one of the few items to create much attention as far as U.S. statistics were concerned. The December trade deficit of $8.2bn was much better than the forecast level of around $11.5bn, but the fall of 0.2 per cent in the U.S. index of leading indicators failed to impress.

STERLING EXCHANGE RATE INDEX (Bank of England)

	Feb. 1	Previous
8.30 am	71.5	71.5
9.30 am	71.5	71.3
10.00 am	71.6	71.4
11.00 am	71.6	71.4
Noon	71.6	71.5
1.00 pm	71.6	71.5
2.00 pm	71.6	71.5
3.00 pm	71.6	71.5
4.00 pm	71.7	71.6

£ in New York

	February 1	Prev. close
£ Spot	$1.1195-1.1205	$1.1265-1275
1 month	0.37-0.35 pm	0.41-0.30pm
3 months	1.00-0.97 pm	1.10-1.06pm
12 months	3.20-3.10 pm	3.40-3.30pm

Forward premiums and discounts apply to the U.S. dollar.

FORWARD RATES AGAINST STERLING

	Spot	1 month	3 month	6 month	12 month
Dollar	1.1245	1.1207	1.1145	1.1095	1.1035
D-Mark	3.5700	3.5506	3.5140	3.4726	3.3837
French Franc	10.91	10.8888	10.8668	10.8806	10.9150
Swiss Franc	3.04	3.0218	2.9874	2.9476	2.8847
Japanese Yen	288.75	287.20	284.30	281.05	274.45

POUND SPOT—FORWARD AGAINST POUND

Feb 1	Day's spread	Close	One month	% p.a.	Three months	% p.a.
U.S.	1.1220-1.1290	1.1240-1.1250	0.40-0.36c pm	4.08	1.04-0.96pm	3.56
Canada	1.4918-1.4995	1.4910-1.4960	0.42-0.33c pm	3.01	1.05-0.88pm	2.58
Nethlnd.	4.03¼-4.06¼	4.03¾-4.04¾	2⅛-2c pm	6.49	6⅞-5⅞pm	0.94
Belgium	71.42-71.75	71.45-71.55	15-9c pm	2.01	38-27pm	1.82
Denmark	12.72¼-12.77¾	12.72¾-12.73¾	2⅞-1⅛ore pm	2.16	6⅞-4⅞pm	1.73
Ireland	1.1481-1.1521	1.1500-1.1510	0.05-0.22c dis	−1.41	0.48-0.80d	−2.19
W. Ger.	3.56½-3.59½	3.56½-3.57½	2⅞-1⅞pf pm	6.72	6-5½pm	6.44
Portugal	193.80-195.90	193.85-195.15	180-475c pm	20.21	395-1285pm	17.07
Spain	196.60-198.85	196.60-197.80	15c pm-15 dis	—	10-65dis	−0.75
Italy	2,197-2,210¼	2,198½-2,199½	2-5 lire dis	−1.91	11-16dis	−2.45
Norway	10.31½-10.37	10.31½-10.32½	1⅞-⅞ore pm	1.31	2-⅞pm	0.48
France	10.89¾-10.95¾	10.90½-10.91½	2⅞-1⅞c pm	2.41	5⅞-4⅞pm	1.81
Sweden	10.18-10.23¾	10.18-10.19	⅞-1⅞ore dis	−1.03	2⅞-3⅞dis	−1.20
Japan	287¾-289¾	288¾-289¾	1.64-1.52y pm	5.57	4.47-4.29pm	5.07
Austria	25.03-25.25	25.09-25.13	13⅞-11⅞gro pm	5.88	36½-32½pm	5.49
Switz.	3.02-3.04½	3.03½-3.04½	2-1⅞c pm	7.15	5½-5⅞pm	7.15

Belgian rate is for convertible francs. Financial franc 71.50-71.60. Six-month forward dollar 1.55-1.45c pm, 12-month 2.20-2.00c pm.

BANK OF ENGLAND TREASURY BILL TENDER

	Feb. 1	Jan. 25		Feb. 1	Jan. 25
Bills on offer	£100m	£100m	Top Accepted rate of discount	11.8538%	11.5515%
Total of applications	£321.795m	£325.4m	Average rate of discount	11.8160%	11.5024%
Total allocated	£100m	£100m	Average yield	12.17%	11.86%
Minimum accepted bid	£97.045*	£97.12	Amount on offer at next tender	£100m	£100m
Allotment at minimum level	05%	13%			

DOLLAR SPOT—FORWARD AGAINST DOLLAR

Feb 1	Day's spread	Close	One month	% p.a.	Three months	% p.a.
UK†	1.1220-1.1290	1.1240-1.1250	0.40-0.36c pm	4.05	1.04-0.96pm	3.56
Ireland†	0.9775-0.9825	0.9775-0.9785	0.48-0.42c pm	5.52	1.36-1.28pm	5.40
Canada	1.3258-1.3285	1.3275-1.3280	0.12-0.15c dis	−1.22	0.35-0.40d	−1.13
Nethlnd.	3.5785-3.6000	3.5915-3.5925	0.69-0.66c pm	2.26	2.19-2.16pm	2.42
Belgium	63.55-63.65	63.55-63.65	12-13c dis	−2.36	34-38dis	−2.20
Denmark	11.28½-11.34½	11.31¼-11.32¼	1.60-2.10ore dis	−1.96	5¼-5¾dis	−1.94
W. Ger.	3.1635-3.1795	3.1780-3.1790	0.68-0.63pf pm	2.47	2.19-2.14pm	2.73
Portugal	173¼-174½	173½-174	225-475c dis	−24.14	600-1360d	−22.41
Spain	175.18-175.75	175.25-175.45	52-62c dis	−3.90	175-195dis	−4.22
Italy	1951½-1958	1956½-1957½	8-9½ lire dis	−5.67	30-30½dis	−6.15
Norway	9.13¾-9.18¾	9.17¼-9.17¾	1.90-2.40ore dis	−2.81	7.15-7.65d	−3.22
France	9.62½-9.71½	9.70½-9.71½	1.35-1.45c dis	−1.73	4.65-4.95d	−1.98
Sweden	9.03¾-9.07¾	9.06½-9.06	3.60-4.10ore dis	−0.10	10.80-11.30d	−4.88
Japan	255.35-256.75	256.65-256.75	0.53-0.49y pm	2.38	1.67-1.62pm	2.56
Austria	22.22½-22.32½	22.24-22.26	3.60-3.10gro pm	1.80	12-10pm	1.97
Switz.	2.6790-2.7040	2.7030-2.7040	0.76-0.70c pm	3.25	2.31-2.25pm	3.38

† UK and Ireland are quoted in U.S. currency. Forward premiums and discounts apply to the U.S. dollar and not to the individual currency. Belgian rate is for convertible francs. Financial franc 63.60-63.70.

OTHER CURRENCIES

Feb. 1	£	$		£ Note Rates
Argentine Peso	251.74-260.0	223.28-223.48	Austria	20.00-20.30
Australia Dollar	1.3860-1.3880	1.2360-1.2370	Belgium	71.00-70.30
Brazil Cruzeiro	4,021—4,546.88	3,567-3,585	Denmark	12.80-10.70
Finland Markka	7.4730-7.5065	6.6250-6.6540	France	10.88-11.00
Greek Drachma	144.43-147.30	128.15-130.76	Germany	3.56-3.50
HongKong Dollar	8.7925-8.8050	7.8020-7.8050	Italy	2180-2230
Iran Rial	100.60*	94.50*	Japan	288-001
Kuwait Dinar (KD)	0.3450-0.3460	0.30606-0.30610	Netherlands	4.02½-4.06½
Luxembourg Fr	71.45-71.00	63.80-63.00	Norway	10.29-10.38
Malaysia Dollar	0.8085-2.8135	2.4020-2.4050	Portugal	101-202
New Zealand Dlr.	2.4010-2.4060	2.1080-2.1305	Spain	194½-205
Saudi Arab Riyal	4.0405-4.0460	3.5800-3.5810	Sweden	10.18-10.00
Singapore Dollar	2.4920-2.4870	2.1110-2.1150	Switzerland	3.02-3.05
Sth African Rand	2.2336-2.2455	1.9840-1.9920	United States	1.12-1.14
U.A.E. Dirham	4.1430-4.1480	3.6720-3.6750	Yugoslavia	277-294

* Selling rate.

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu February 1	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	44.9008	44.5370	−0.81	+0.06	±1.5428
Danish Krone	8.14104	7.93810	−2.52	−1.65	±1.6421
German D-Mark	2.24184	2.22431	−0.78	+0.09	±1.1463
French Franc	6.87456	6.79767	−1.12	−0.25	±1.3659
Dutch Guilder	2.52595	2.51584	−0.40	+0.47	±1.5165
Irish Punt	0.72569	0.715032	−1.46	−0.58	±1.6671
Italian Lira	1403.49	1371.27	−2.30	−2.11	±4.0511

Changes are for Ecu, therefore positive change denotes a weak currency. Adjustment calculated by Financial Times.

CURRENCY MOVEMENTS

Feb. 1	Bank of England Index	Morgan Guaranty Change%
Sterling	71.7	—18.8
U.S. dollar	146.7	+32.0
Canadian dollar	90.8	—3.5
Austrian schilling	110.5	+3.6
Belgian franc	88.8	—10.1
Danish Kroner	70.0	—4.8
Deutsche mark	120.4	+6.3
Swiss franc	130.1	+8.2
Guilder	109.9	+0.9
French franc	63.8	—10.0
Lira	46.6	—13.8
Yen	163.0	+0.7

Morgan Guaranty changes: average 1980-1982=100. Bank of England Index (base average 1975=100).

CURRENCY RATES

Feb. 1	Bank rate %	Special Drawing Rights	Europ'n Currency Unit
Sterling	—	0.868694	0.621268
U.S. $	8	0.974074	0.700790
Canadian $	9.75	*	0.929528
Austria Sch.	4½	21.7063	15.6905
Belgian Fr.	11	61.9310	44.5370
Danish Kr.	7	11.0265	7.93610
Dmark	4½	3.09025	2.22431
Guilder	5½	3.49644	2.51584
French Fr.	9½	9.45339	6.79767
Lira	15½	n/a	1371.27
Yen	5	248.827	179.613
Norway Kr.	8	8.92544	6.43431
Span'h Ptz.	½	170.960	122.969
Swedish Kr.	0	n/a	6.34706
Swiss Fr.	4	2.61987	1.88737
Greek Dr'ch	20½	106.294	90.9415
Irish Punt	12¾	0.995953	0.715092

*C$/SDR rate for Jan 31: 1.29401

EXCHANGE CROSS RATES

Feb. 1	Pound St'rling	U.S. Dollar	Deutsche m'k	J'panese Yen	French Franc	Swiss Franc	Dutch Guild	Italian Lira	Canada Dollar	Belgian Franc
Pound Sterling	1.	1.125	3.570	288.8	10.91	3.040	4.043	2199.	1.493	71.60
U.S. Dollar	0.889	1.	3.179	256.7	0.710	0.704	3.592	1907.	1.326	63.60
Deutschem'rk	0.280	0.315	1.	80.88	3.056	0.850	1.132	616.0	0.410	20.03
Japanese Yen 1,000	3.463	3.894	10.36	1000.	37.78	10.53	14.00	7010.	5.171	247.6
French Franc 10	0.017	1.031	3.272	264.7	10.	2.786	3.704	2016.	1.368	65.54
Swiss Franc	0.328	0.370	1.174	94.96	3.589	1.	1.330	723.4	0.491	23.52
Dutch Guilder	0.247	0.278	0.885	71.43	2.690	0.750	1.	544.0	0.369	17.69
Italian Lira 1,000	0.455	0.511	1.626	131.3	4.961	1.382	1.838	1000.	0.679	32.51
Canadian Dollar	0.670	0.703	2.381	195.4	7.307	2.036	2.708	1473.	1.	47.89
Belgian Franc 100	1.399	1.573	4.993	403.8	15.26	4.252	0.654	3076.	2.088	100.

EURO-CURRENCY INTEREST RATES (Market closing rates)

Feb.1	Sterling	U.S. Dollar	Canadian Dollar	Dutch Guilder	Swiss Franc	D-mark	French Franc	Italian Lira	Belgian Franc Conv.	Belgian Franc Fin.	Yen	Danish Krone
Short term	13¾-14	8⅛-8⅜	0⅝-10⅛	6¼-6⅜	2-2⅛	6⅞-0	10⅛-10⅜	14-15	10¾-11¼	11-11¼	0-6⅛	9⅛-9⅝
7 days' notice	13¾-14	8⅝-8¾	8⅝-9¾	6¼-0⅝	3⅜-3⅝	6⅞-6	10⅛-10⅜	14¼-16¼	10⅞-11¼	10⅞-11⅛	6⅛-6⅜	11⅛-10
Month	16¼-13⅝	0⅜-8¾	0⅛-10⅛	6⅛-6⅜	0⅛-5⅞	0⅛-6⅛	10⅛-10⅜	14⅝-16⅛	10¾-11¼	10¾-11	6⅜-6⅛	11⅝-11⅞
Three months	12⅝-13¾	8⅛-8⅜	9⅛-9⅜	6⅛-6⅜	0⅜-6½	6⅛-6⅜	10⅛-10⅜	14⅞-10⅝	10¾-11¼	10¾-11	6⅛-0⅝	11⅝-12⅛
Six months	10-12⅛	8⅛-0⅜	9⅛-10⅛	0⅝-6⅛	5⅛-5⅜	6⅛-6⅜	11⅛-11¼	15-10⅝	10¾-11¼	10¾-11	6¼-6⅜	11⅛-11¾
One year	11⅞-12	0⅝-0¾	10-10¼	6⅛-6⅜	0⅛-6⅜	6⅛-6⅜	11⅛-11⅝	10¼-10⅞	11-11⅛	10¾-11	6⅛-6⅝	11⅛-11¾

Asian $ (closing rates in Singapore): Short-term 8½-8¾ per cent; seven days 8⅝-8¾ per cent; one month 8½-8⅝ per cent; three months 8½-8⅝ per cent; six months 8⅞-9 per cent; one year 9⅛-9⅜ per cent. Long-term Eurodollars: two years 10⅛-10⅜ per cent; three years 10⅝-11 per cent; four years 11⅛-11½ per cent; five years 11½-11⅞ per cent nominal. Short-term rates are call for U.S. dollars and Japanese yen; others two days' notice.

MONEY MARKETS

An erratic week

After a very erratic week, as far as the London money market was concerned, there was no firm indication how far base rates would be cut by Friday's close. The week began extremely badly, with base rates rising to 14 per cent from 12 per cent, on continued concern about sterling's decline on the foreign exchanges.

There was also an air of nervousness about the Government's view on inflation, amid fears that more attention had been turned towards the problems of unemployment and the rate of economic growth.

In early trading on Tuesday interbank three-month money touched a peak of 14⅛-14⅜ per cent as the meeting of ministers from the Organisation of Petroleum Exporting Countries threatened to break up in disarray in Geneva.

There was therefore a threat of even higher base rates, but as a calmer tone returned to the Opec meeting, and eventual majority agreement to a new price structure, money market rates fell sharply.

By Wednesday market rates were discounting a cut of 1½ per cent to 12½ per cent in base rates, and by this time the major institutional investors were trying to get back into markets they had been all too happy to quit on Monday.

The mood was illustrated by temporary suspension of sales of certificates of tax deposit. Rates on these certificates were increased on Tuesday, but caused such a queue of investors on Wednesday that the day-to-day credit shortage in the money market virtually doubled as money was withdrawn from the banking system to buy tax deposits.

During much of the month the discount houses were reluctant to trade in paper, because rates were considered unreasonably low, but by the middle of last week the Bank of England was finding it very difficult to encourage the houses to part with paper outright.

UK clearing banks base lending rate 14 per cent since January 28.

MONEY RATES

Feb. 1	Frankfurt	Paris	Zurich	Amst'dam	Tokyo	Milan	Brussels	Dublin
Overnight	0.9-6.1	10¾	2⅝-3⅛	6¼-0⅛	6.28120	15⅞-10¼	12.10	16-16¼
One month	5.55-5.70	10⅛-10⅜	5⅜-5⅛	6¼-6⅝	6.125	15¾-10⅛	10¾-11	14⅞-10
Two months	5.90-6.05	10⅛-10⅜	—	—	—	—	—	14⅝-14⅞
Three months	6.00-6.10	10⅛-10⅜	0⅛-0⅜	0¼-0⅜	6.34370	10⅞-16¼	10⅝-10⅞	14⅞-14¾
Six months	6.10-6.20	10⅛-10⅜	—	6⅛-6⅜	—	—	10⅝-10⅞	14¼-14⅛
Lombard	6.0	—	—	—	—	—	—	—
Intervention	—	10⅛	—	5¾	—	—	—	—

LONDON MONEY RATES

Discount Houses Deposit and Bill Rates

Feb. 1 1985	Sterling Certificate of deposit	Interbank	Local Authority deposits	Company Deposits	Market Deposits	Treasury (Buy)	Treasury (Sell)	Eligible Bank (Buy)	Eligible Bank (Sell)	Fine Trade (Buy)
Overnight	—	10⅛-14⅛	13¾-14	11-14⅛	10-14¼	—	—	—	—	—
2 days notice	—	—	14-14⅛	—	—	—	—	—	—	—
7 days or	—	—	—	—	—	—	—	—	—	—
7 days notice	—	13¾-14¼	13¾-14⅛	14¼-14⅛	13⅝-13¾	—	—	—	—	—
One month	13⅛-13⅛	16¼-13⅛	13⅛	16⅛	13¼	13	12⅛	13⅛	12⅞	13⅝
Two months	16¼-16⅝	12⅞-15⅛	12¾	13⅛	12	12⅛	12¼	12⅛	12¼	13⅛
Three months	13⅛-13⅝	12⅝-10⅞	12⅝	12⅞	12	12⅛	11⅞	13¼	11⅞	12¾
Six months	10-11⅛	11⅞-10¼	12¼	—	—	—	—	11⅞-11¼	11¼	12⅛
Nine months	11¾-11⅝	11⅞-12⅛	—	—	—	—	—	—	—	—
One year	11⅝-11⅛	11¾-12	11¾	—	—	—	—	—	—	—

	Local Auth. negotiable bonds	Local Authority Deposits	Finance House Deposits	$ Cert of Deposits	SDR Linked Deposits	ECU Linked Deposits
One month	13⅞-15⅛	—	13⅛	8.5-8.6	0¼-8⅛	9⅛-10⅛
Two months	15⅝-12⅝	—	—	8.55-8.65	0⅛-8⅛	9⅛-10⅛
Three months	13⅛-10¾	—	12⅞	8.7-8.8	8⅝-6⅝	9⅛-10⅛
Six months	12¼-11⅞	—	12⅛	8.1-8.8	0⅛-8¾	9⅛-10⅛
Nine months	12¼-11⅞	—	12⅛	6.7-8.9	—	—
One year	12⅛-11¼	—	13	0.5-9.7	8⅛-0⅛	0⅛-10⅛
Two years	—	11¾	—	—	—	—
Three years	—	11⅞	—	—	—	—
Four years	—	11⅞	—	—	—	—
Five years	—	11⅞	—	—	—	—

ECGD Fixed Rate Export Finance IV: Average Rate of interest period December 5 1984 to January 1 1985 (inclusive): 9.913 per cent. Local authorities and finance houses seven days' notice, others seven days' fixed. Finance Houses Base Rate (published by the Finance Houses Association): 10½ per cent from February 1 1985. London and Scottish Clearing Bank Rates for lending 14 per cent. London Deposit Rates for sums at seven days' notice 11-11¼ per cent. Treasury Bills: Average tender rates of discount 11.8160 per cent. Certificates of Tax Deposit (Series 6): Sales temporarily suspended. Rates prior to suspension were: Deposit £100,000 and over held under one month 14¼ per cent; one-three months 14 per cent; three-six months 13¾ per cent; six-nine months 13½ per cent; nine-12 months 13¼ per cent. Under £100,000 12¾ per cent from January 30. Deposits held under Series 6 10 per cent. The rate for all deposits withdrawn for cash 9 per cent.

FT LONDON INTERBANK FIXING

(11.00 a.m. February 1)
3 months U.S. dollars

bid 07/8	offer 0

6 months U.S. dollars

bid 9 1/16	offer 9 3/16

The fixing rates are the arithmetic means, rounded to the nearest one sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 am each working day. The banks are National Westminster Bank, Bank of Tokyo, Deutsche Bank, Banque Nationale de Paris and Morgan Guaranty Trust.

MONEY RATES

NEW YORK (4 pm)

Prime rate	10½
Broker loan rate	9¾
Fed funds	8¾
No Fed intervention	—

Treasury Bills

One month	7.50
Two month	7.90
Three month	8.18
Six month	8.25
One year	8.48

Treasury Bonds

Two year	99[illegible]
Three year	101[illegible]
Four year	99[illegible]
Five year	100[illegible]
Seven year	102
10 year	102
30 year	103[illegible]

FINANCIAL TIMES SURVEY

DIESELS

THE AUTOMOTIVE ALTERNATIVE

The wide variety of markets, from vehicles to marine and industrial use, has spurred intense research to improve the engines. Continued over-production is likely to depress prices and margins for some time

By Ian Rodger

ONCE AGAIN, the world diesel engine industry appears set for a period of significant growth. And again, the basis for optimistic forecasts is the belief that diesels will become increasingly popular, among car and small truck and van buyers.

Apart from that hope, however, this large international industry is not in very good shape. Total world production of diesel engines last year probably reached close to 10m units, up about 5 per cent from 9.4m units in 1983, but strong growth in the automotive sector more than offset weakness elsewhere. And capacity far exceeds demand.

The fall in sales to other markets is not due to any decline in the acceptability of diesels, but because of the continuing slump in demand for the machines in which they are installed, such as agricultural and construction equipment, ships and railway locomotives.

One of the diesel industry's strengths in the past has been its variety of markets. Diesels span a huge power range, from tiny fractional horsepower units to giant ship engines developing over 5,000 hp and they are used to power dozens of machines, including pumps, compressors, electricity generating sets and railway locomotives. Usually, some markets would be strong even if others were weak.

The largest single market for diesels is the commercial vehicle sector, accounting for aboout 30 per cent of unit sales, according to a report by Planning Research and Systems, London-based consultants that specialise in the diesel industry. Agricultural equipment takes about the same number of units, but of smaller engines.

Other important product categories include industrial equipment, which takes 9.2 per cent of units, construction equipment, which takes 5.2 per cent, electricity generating sets (4.2 per cent) and marine (1.9 per cent).

To some extent, the unit figures distort the true market breakdown. Marine engines, for example, tend to be larger than average. But the heart of the industry, where more than three quarters of the volume and value is achieved, is on the 30 hp-500 hp range, for use in vehicles and industrial and construction equipment.

Unfortunately for diesel makers, almost all of these markets have been depressed in recent years. World tractor output, for example, is down 30 per cent from the peak level of 840,000 units in 1976. Truck production likewise is well down from the levels of the 1970s, with only the U.S. industry showing some recovery in the past year.

Sales into marine and locomotive markets have also been hard hit. Unit output of marine diesels in 1983 was down 20 per cent from 1979, and of locomotives down a quarter.

One consequence of the slump in the main traditional markets for diesels has been a high level of unused production capacity. Some industry estimates put the current average operating rate of diesel makers at about 70 per cent.

Oddly, the over-capacity problem is getting worse. There are some 300 producers of diesel engines around the world, and 250 of them make engines other than for their own use. New capacity is being introduced at a faster rate than old capacity is closing.

For example, Cummins Engine of the U.S. has started up a new plant in the U.S. with capacity of 230,000 engines a year, and the only known offsetting closures are a J.I. Case plant in the U.S., with capacity of about 20,000, and Leyland Vehicles' plant in Scotland (about 40,000).

Also Liebherr, the West German construction equipment maker, has begun to produce its own engines rather than buy them, and J. C. Bamford Excavators of Britain is thinking of doing the same thing.

And over the past few years, Japanese manufacturers, both of engines and equipment, have become more active in world markets, taking away volume from established suppliers in the process. In Western Europe, for example, they have taken significant market shares in many countries in the fork lift truck sector.

Japan's total share of world diesel engine production has grown from just over 20 per cent in 1979 to 25 per cent, mainly at the expense of Western European producers, whose share has fallen from 41 per cent to 32 per cent.

Not surprisingly, no one expects the over-capacity problem to be solved quickly, which means that prices and margins are likely to remain depressed for some time.

Against this background, the potential of the car market has been the one bright spot for the diesel industry. It has at least been growing as a proportion of the total, even if only slowly. Cars now account for 17 per cent of diesel unit sales compared with only 13 per cent in 1979.

Diesels were widely expected in the late 1970s to make major progress in the automotive industry, mainly because of their lower fuel consumption compared with petrol engines. Several car manufacturers then planned to produce diesel engines in large numbers.

However, diesels are not as powerful as comparably-sized petrol engines and the figures suggest that, unless the financial incentive is substantial, car buyers will still go for the better performance. Diesel penetration in Japanese car markets, for example, moved from 2.5 per cent in 1980 to 4.3 per cent in 1983. In France, it rose from 9 per cent to 9.8 per cent.

The most growth has been in Italy where diesel fuel costs less than half the price of petrol. Penetration there rose from 5.4 per cent in 1980 to 12 per cent in 1983.

The biggest disappointment has been in the U.S., where diesel penetration in cars has actually declined from 5.4 per cent to 1.4 per cent. This is almost entirely because of the bad reputation given to the diesel by a problem-ridden V8 model introduced by General Motors in 1979.

The result is that diesels still have a very small 3 per cent share of the world's huge car and small truck markets. However, now that the memories of GM's diesel fiasco in the U.S. are fading, there is some hope that demand will recover there.

The diesel's acceptability should also be enhanced by recent technological developments that improve its performance and reduce its undesirable characteristics, such as noise.

Probably the most important development is the introduction of direct fuel injection systems (DI) for diesels for cars. Because of the high performance demanded of car engines, diesels for this application must run at high speed.

That makes it difficult to achieve efficient direct injection of fuel into the cylinder following the compression stage, and so these engines have, up to now, used indirect systems which involve igniting the fuel first in a small chamber adjacent to the cylinder.

However, indirect injection brings penalties in fuel consumption and emission levels, so the diesel industry has been working on developing direct injection pumps that can be used in high-speed engines. It is hoped to achieve fuel savings of about 15 per cent.

Last year, Ford introduced the first high-speed diesel with DI on its Transit Van in Europe, and it has performed well. Late this year, Austin Rover of Britain plans to introduce the first DI diesel engine in a car.

Technology may also yield ways of solving the problem of excessive competition in other sectors of the diesel industry.

Apart from the development of direct injection systems for high-speed diesels for cars, a number of other improvements are being made or considered. Still in the ignition area, for example, a number of manufacturers have been developing electronic ignition systems. These will enable the user to select the level of torque needed for a particular job and so conserve fuel in low-torque applications.

The use of new materials, such as ceramics, is an area of great interest because a diesel engine becomes more efficient if it is allowed to run at a higher temperature. Industry experts now doubt, however, that commercial diesels will ever become completely adiabatic, that is, able to operate without any cooling. Other lines of research are aimed at reducing emissions and noise.

Those engine makers most active in research and development programmes hope that their efforts will result in advances that give them a decisive competitive advantage in the market.

Engine makers have found though that in the rough trading conditions of the past few years, customers have been less interested in engine advances than in low prices.

For all the problems, the potential for diesel engines is still enormous and they still account for only about 13 per cent of total world engine production.

W. Murray Scott, manager of light diesel development at Ricardo Consulting Engineers, at one of the test cells

Hugh Routledge

John Devaney, managing director of Perkins Engines, on part of the production line at the Peterborough plant

CONTENTS

Market boost expected in U.S. haulage industry

Commercial vehicles

KENNETH GOODING

DRAMATIC CHANGES to the character of the baulage industry in the U.S. are certain to boost the use of diesel engines by commercial vehicle producers—already the major customers for diesel units world-wide.

Until recently the U.S. haulage industry has been very closely regulated by the Interstate Commerce Commission which had as its objective the maintenance of a bealthy, stable industry protected from radical change, with an adequate return on capital.

The ICC regulated entry to the industry, the markets served, commodities carried, routes used and other factors to a truly mind-boggling level of detail.

This has now been blown away by Federal decree because the U.S. Government claimed that regulation produced a remarkably inefficient haulage industry in America. It encouraged a proliferation of the type of equipment used and too many trucks were running empty. For example, general hauliers, who could carry loads for anyone, have been running trucks fully loaded only 10 per cent of the time and at least 30 per cent of the time the trailers were empty.

Private carriers, who were permitted to shift only their own goods, ran fully loaded only about half the time because it was unusual for the truck to have a load to bring back.

Those making guesses about the impact of de-regulation say that the longhaul business will almost disappear. Any journey over about 700 miles will be done by "piggyback," where the truck trailer is carried by rail for part of the journey.

This should limit the number of heavy-duty tractive units required in the U.S. in future and in theory there will be no need for engines of over 350 horsepower in the States for general haulage.

So the U.S. industry is expecting a switch from the Class 8 trucks (over 33,000 lbs gross weight) towards the Class 7 (26,000 lbs to 33,000 lbs gross).

And the number of delivery trucks should increase greatly because they will be needed to run to and from railheads as well as truck terminals.

In addition, if manufacturers of all types of products become heavily committed to centralised production and increase the number of distribution points, this will provide yet a further boost for the short haul-local deliver vehicles, known as Class 5 (16,000 lbs to 19,500 lbs) and Class 6 (19,500 lbs to 26,000 lbs gross).

These two classes of truck have already experienced a considerable switch to diesel engines from the petrol type. "Dieselisation" is forecast to continue apace at a time when demand for Class 5 and 6 vehicles is also expected to grow much faster than the commercial vehicle market as a whole.

The peak year for diesel truck sales—in unit terms—in the U.S. was 1979 when 258,530 were registered representing 8.5 per cent of the 3.036m total commercial vehicles sold. Last year the diesels accounted for 247,280 or 10.24 per cent of 2.413m total sales.

Compared with that, the diesel element in Class 6 sales in 1979 was 17,270 out of 163,305 or 10.6 per cent while last year diesels numbered 11,315 out of 47,850 or 23.6 per cent of the sector.

Nearly all the heavyweight, Class 8 trucks sold in the States are diesel—last year 83,655 out of 85,655—but in Class 7 the diesel percentage obstinately refuses to rise. In 1979 diesels accounted for 54.4 per cent of the 46,265 total sales and last year 55 per cent of the 59,026 trucks sold.

Diesel penetration is also improving dramatically in the lower weight, Class 2 sector (6,000 lbs to 10,000 lbs gross) which in 1979 had virtually no demand for the oil-burners: only 950 trucks or 0.06 per cent of the 1.594m sold. Last year diesels had moved up to 93,455 or 11 per cent of the 849,500 sold.

Diesels have failed to make much headway at the lower end of the U.S. commercial vehicle market because the price of petrol is still relatively low and the manufacturers also have available inexpensive, big petrol engines produced in large numbers for use in cars which can be used as well in commercials.

Thus, purchases of Class 1 *commercials (up to 6,000* lbs gross) with diesel engines have yo-yoed in line with petrol prices. They reached a peak of 72,500 in 1980 (a respectable 12.2 per cent of total sales in *the class)* and last year fell back to 26,355 or 1.9 per cent.

U.S. producers have already anticipated the rise in demand for diesel engines for Class 6 trucks—and given the trend e helping hand—by introducing new "economy" diesels. Ford, General Motors, via its Detroit Diesel Allison subsidiary, and International Harvester have all been taking steps to improve their positions.

And the independent diesel makers, Cummins and Caterpillar, have been moving into the market for smaller diesels for medium trucks.

Independent

The U.S. is also providing the main battleground between the independent engine producers and the truckmakers who are deeply involved in developing and manufacturing their own diesel units.

Daimler-Benz of West Germany and the two Swedish companies, Scania and Volvo, are particular proponents of the concept that in a premium truck the engine, gearbox and axles have to be perfectly matched and that this can only be achieved if they are all developed and produced by the same organisation.

Many of Europe's other truck makers, including Daf, Iveco (the Fiat subsidiary) MAN and *Renault's truck* and bus company, also develop and manufacture their own diesel engines.

In the U.S. the heavy truck market is very different and the customer usually specifies his favourite diesel engine around which the assembler "packages" the vehicles.

Daimler-Benz, which now owns Freightliner in the States, and Volvo, which bought White Trucks, are attempting to persuade the U.S. hauliers that the "matched driveline" is best while continuing to give the market what it currently demands—trucks with proprietory diesels, from Cummins, Caterpillar, DDA and so on.

There are indications that, just as happened in Europe, the U.S. market will gradually become split between the two concepts which in any case seem to be able to live happily side by side.

The trend will be helped by other European groups—Renault is already represented in the U.S. by a 46 per cent shareholding in Mack (one of the few American truck companies which produces diesel engines of its own) and both Scania and MAN have signalled their intention to move into the U.S. market.

And the Japanese, who between them produce about 1m commercial vehicles a year, one quarter of them diesel-powered, also have their eyes on the American market, with the idea of filling niches with delivery and medium-weight vehicles all employing diesels. Mitsubishi, Nissan Diesel, Hino and Isuzu have all made their plans.

Attention is focussed on the U.S. because demand for commercial vehicles elsewhere in the world seems likely to remain depressed for some years. Countries in the Middle East and Africa have a big need for *trucks but simply cannot* find the foreign currency to pay for them for the time being.

Over the next few years, therefore, the U.S. provides the best prospects if the commercial vehicle industry is to increase total sales worldwide and also to boost its use of diesel *engines.*

Assembly of Mack Midline trucks at Renault's Blainville plant in northern France. These models, with their six-cylinder direct-injection Renault engines, compete directly with both petrol and diesel vehicles in the U.S. Class 6 and 7 market

Great strides in fuel efficiency

Marine uses

ANDREW FISHER

LIKE SHIPBUILDING, the buoyancy of the marine engine industry depends on bow strong or weak shipping markets are, and bow willing governments are to subsidise yards and buy in orders.

Just now, the shipping sector remains slack, shipbuilding companies are mostly groping their way in a state of permanent crisis, and governments appear less and less keen to pour their money down what looks like a bottomless pit.

So the world's marine engine builders—chiefly Sulzer of Switzerland, M.A.N.-B and W, the West German/Danish grouping, SEMT Pielstick of France, Krupp MaK of West Germany, and Mitsubishi of Japan—are currently fighting it out in a bighly-competitive arena.

All have made great strides during the 1980s in making engines even more fuel-efficient. Back in the 1890s, Rudolf Diesel of Germany reckoned that thermal efficiency of 55 per cent was theoretically possible and up to 47 per cent practicable.

In those pioneering days he thought 30-37 per cent more realistic. But engine builders have now broken through the 50 per cent thermal efficiency barrier to ensure that more of the heat goes into running the engine and less of it is wasted.

With Far Eastern yards building about three-quarters of the world's tonnage, the engine companies look mostly to Japan and South Korea who have developed a stranglehold over the hard-pressed shipbuilding industry. Most of the engines are built by licensees.

Nearly two years ago, Sanko Steamship, a Japanese line which was financially in very dire straits, nonetheless ordered more than 120 bulk carriers in Japan's shipyards. Of these, most were supplied with Sulzer engines, followed at some distance by B and W (the Danish end of M.A.N.-B and W) and Mitsubishi.

Sulzer introduced its new RTA Superlongstroke engine—the one used in many of the Sanko vessels—three years ago. It claimed that about 10 per cent could be knocked off vessels' fuel bills. B and W has since come out with its own new low speed range, designed also to provide more power at less cost for big cargo ships.

Shipowners are not looking for speed these days. With *too many ships around,* they are not keen to race from port to port and burn up costly fuel. Recent shipping company bankruptcies and rescues show that the bard times in the sector are by no means over yet.

Along with the engine improvements bave come new developments in propeller and bull shapes, as well as special paints to minimise friction. All of these cost money, of course. The new engines may save money, but they cost more. The RTA was set at a price some 12 per cent higher than comparable engines from the previous range.

Container ships

A good deal of the shipbuilding activity at present is in the container sector, with Evergreen of Taiwan, United States Lines, and several other companies beefing up their fleets for major scheduled (liner) routes, including round-the-world services.

The huge new container ships of U.S. Lines, being built in Korea, have Sulzer engines, as do many of Evergreen's and those of Yang Ming, another expansion-minded Taiwanese line. In this sector, however, *shipping* experts fear the effects of over-tonnaging, which has previously damaged other types of vessels like tankers and bulk carriers.

Although big tankers are now being ordered egain, though not exactly in profusion, the high levels of scrapping and lay-up in recent years have meant that demand for engines to power new oil carriers has been poor. And the more ships that are laid-up, the less demand for spares.

In Britain, the effect on the engine builders has been severe. State-owned British Shipbuilders has been forced to cut back its engine manufacturing sharply, as new merchant ship orders have become ever scarcer. After heavy losses, it has reduced jobs and capacity.

BS, which has amalgamated Clark Hawthorn of Tyneside and John G. Kincaid of Greenock on the Clyde, into a single concern (Clark Kincaid) wants to keep some engine-building capacity so it can offer shipowners a total package when trying to win new orders.

Otherwise, it would have to order the engines through Sulzer, B and W, or other licensors and would have less control over their price, which can run from £1.25m to well over £3m. It would like to build up to 10 engines a year, but has no new orders at present. In 1980, it had as many as 29 orders through the two companies.

Another shipbuilder keen to win more engine business is Harland and Wolff of Belfast, *also state-owned. Though* it has trimmed its shipbuilding capacity and also been successful recently in winning new orders, it still needs to find more work. *The yard builds* B and W engines under licence.

In 1983, the last year for which full figures are available, low-speed diesel engines accounted for about 70 per cent of the 9.7m brake horse-power (bhp) installed on ships by world manufacturers. Of the 588 ships with this category of engine, 86 were built by the licensor and 508 by licensees, according to Motor Ship magazine.

The major companies' market shares have see-sawed over the years. During 1983, Sulzer had some 36 per cent of the low-speed market, with M.A.N.-B and W at 49 per cent, the B and W component being 41.5 per cent. Third was Mitsubishi at 14 per cent.

The same three groups led the rankings for all types of diesel, including medium and high-speed engines, followed by Krupp MaK of West Germany, France's Pielstick, and Wartsila of Finland. It was a Pielstick design, which Wartsila *installed* on the latest $150m cruise ship, Royal Princess, built by the Finnish company's shipyard for P & O Cruises of the UK.

Rescue

B and W's link with M.A.N. *began after the Danish* parent company ran into financial difficulties a few years ago and had to be bail out. M.A.N. came to the rescue of the diesel side, while the shipyard was kept going by the Copenhagen government.

But the major European makers look like being threatened by competition from their major market, the Far East. Mitsubishi has licensed Hyundai of Korea to build its *own low-speed engines and is* also reported to be looking beyond Asia to Europe, possibly seeking a licensee in Germany.

The Japanese market is certainly feeling the effects of its dominance of a declining world shipbuilding industry. Under government direction, capacity of its shipyards has already been reduced. Now, the government wants engine makers to limit their output as well.

UK and Japanese generator production compared

	1980	1981	1982	1983	1984	1985	1986	Growth 1981-86
Japan generator sets*	100,200	106,000	108,000	113,400	119,000	125,000	131,000	4 per cent
UK generator sets	51,540	52,025	53,600	55,000	56,500	58,100	60,000	3 per cent

† Includes petrol-driven sets.

Source: Planning Research and Systems.

Standby needs fully supplied

Electricity generators

LYNTON McLAIN

ELECTRICITY generating sets, especially for stand-by power supply, continue to absorb a substantial number of diesel engines as the prime driving force.

This reflects the well-established virtues of the diesel engine as a reliable and economic source of power and one which is able to run, if required, on a variety of qualities of fuel, an attractive feature in some of the export markets with a growing requirement for emergency power supplies.

The generator set industry continues to have a major presence in export markets, with a total of £793.6m exported by the six leading generator set manufacturing countries in 1983, according to the *Association of British Generating Set Manufacturers.*

This total includes £282.2m exported by the Japanese generator set industry, the leading industry by the size of its total exports. However, not all these generator sets are powered by diesel engines, especially at the lower end of the power range at around a few kilowatts output, for which Japanese companies often use petrol engines as the prime mover. Ninety per cent of Japan's output of generator sets is under 50 horse power, one of the most competitive categories in the industry.

The UK generator set industry, with about 120 manufacturers, once again dominated the export performance league in 1983 in terms of diesel-only powered units. The UK industry is led by 12 large generator set manufacturers and the output from most of these companies comprises generator sets powered by diesel engines.

The UK industry exported generator sets worth £156.3m in 1983, the latest available figures. This gave the UK industry 19.7 per cent of the export sales of all generator sets made by the U.S., Japan, the UK, West Germany, France and Italy.

Exports

Excluding Japan, with its greater use of petrol engine generators, this performance by the *UK industry* pushed the U.S. into second place in terms of export shares won in 1983.

This performance gave the UK diesel-based industry a growth rate in exports of 5.4 per cent in 1983, compared with a fall of 8.1 per cent in exports of generator sets as a whole from the leading manufacturing countries.

The UK exports about 80 per cent of its output of generator sets. Exports have been helped by the weakness of sterling in many world markets in recent months. *This has been offset partially* by trading difficulties in certain markets, especially the Middle East and parts of Africa.

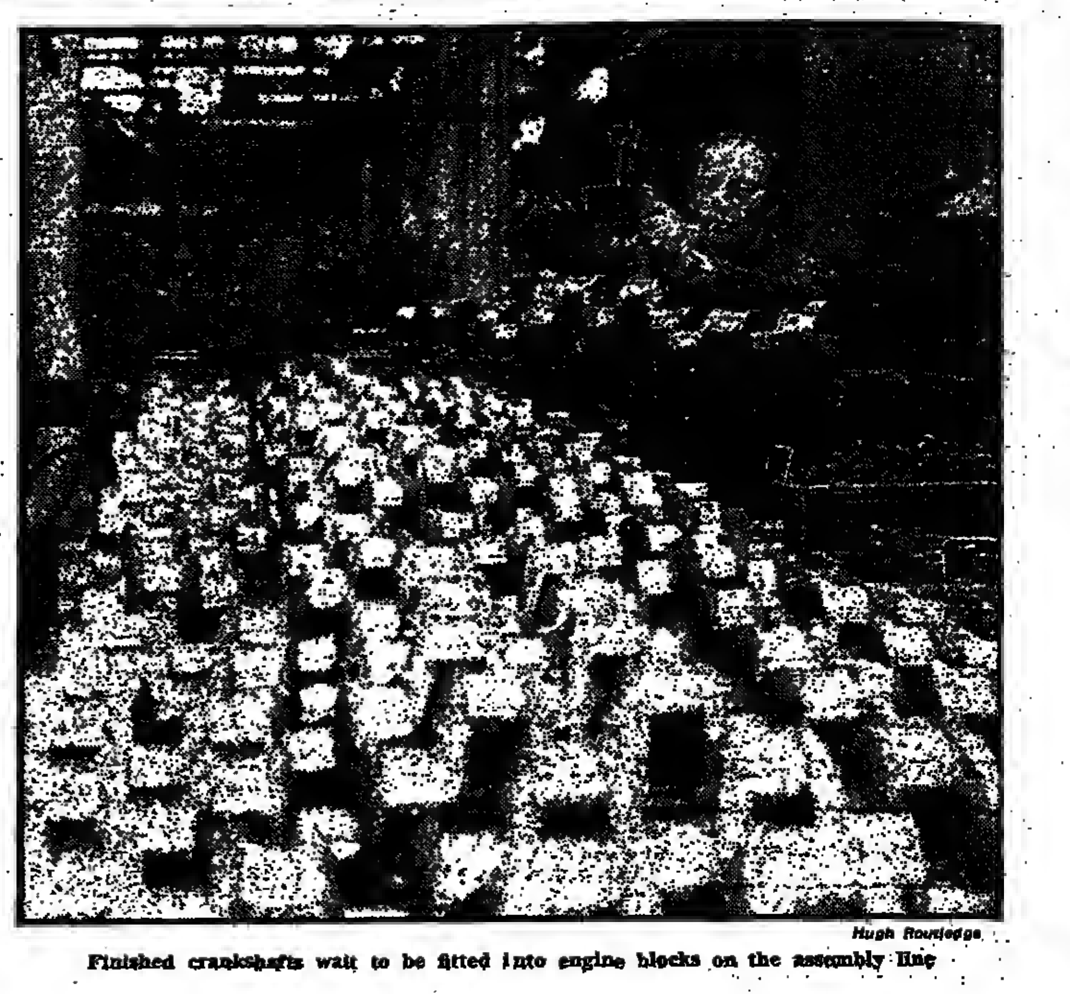
The UK home market, absorbing only about a fifth of the UK industry's output, has not proved to be of a sufficient size to attract the growing Japanese generator set industry in "threatening" numbers, according to the National Economic Development Office.

Of much greater concern, however, is the rapidly-rising impact of Japanese generator set makers in world markets.

The Japanese industry has increased its exports of diesel and petrol generator sets from £79m in 1979 to £282.2m in 1983. This represents more than a doubling of Japan's share of world export markets for generator sets from 15.7 per cent to 35.5 per cent.

Over the same period, the UK industry's share of world export markets slipped marginally from 2[illegible] per cent in 1979 to 19.7 per cent in 1983.

The growing inroads made by the Japanese generator set industry in only four years caused serious concern at the NEDO Industrial Electrical Equipment sector working party where the Japanese competitors were seen as having pushed the UK industry down the world export league and "pose a major threat to the UK's overseas markets."



Hugh Routledge

Finished crankshafts wait to be fitted into engine blocks on the assembly line

Rapid growth puts prejudice behind

Cars

JOHN GRIFFITHS

WITH THE possible exception of North America, the world is gradually overcoming its prejudice against the diesel engine as a power unit for cars.

The prejudice has been understandable; diesels are inherently considerbly less powerful, size for size compared with their petrol-fuelled equivalent; the fuel they use has an unpleasant smell and is messy to handle; diesels can be difficult to start and noisy, particularly at tickover; they need to be scrupulously maintained, and their very high compression ratios require more frequent oil changes.

They also cost rather more to buy than equivalent, frequently much better performing, petrol-driven models.

They do, however, have certain advantages which are becoming of increasing significance:

● They have a fuel consumption which, typically, is 25 per cent less overall than an equivalent petrol engine. (The urban driving advantage is much more pronounced — at least 50 per cent better fuel consumption can be expected vis-a-vis petrol. But this is offset by a fall to about 15 per cent in high-speed driving on motorways).

● They emit considerably fewer pollutants than petrol engines, an increasingly important factor given the degree of concern now being aired throughout Europe on the effects of car engine pollutants *on forests — dying* at an alarming rate — and concern about the effects on humans of the release into the atmosphere of the lead which is used as an engine knock-suppressant in petrol.

● They tend to be longer lasting than petrol engines if *properly maintained* and — as a result — their resale values (possibly the biggest single cost of owning and operating a car) can be markedly higher.

Glow plugs

In the last few years, manufacturers have been able to build on these plus points for the diesel in various ways: engineering and technology advances have reduced the period needed for the glow plugs to heat up, thus allowing the engine to be started, to the point where the delay is all but unnoticeable;

Much of the noise has been designed out, while Mercedes last year went one step further by encapsulating the engine in a sound-reducing box;

The purchase premium required for a diesel has come down as manufacturers have been able to spread the cost over a growing number of units. And, within a year or so, the first of a new generation of directly injected diesels should start to see a further increase in economy, of at least 15 per cent (although further improvements in the economy of petrol engines are likely to produce more economies too).

The *gains* already made in terms of new car market penetration since 1975 in Western Europe have been substantial. From 3.1 per cent, they had climbed to 11.3 per cent by the end of 1982, representing unit sales of 985,500.

In 1983, however, they fell back, to 9.3 per cent. It appeared for a time that this was proof that the diesel, because of its power disadvantages, would always remain vulnerable to shifts in consumer priorities—for the market has once again become more performance conscious as, for those in work, the memories of recession recede.

But 1983 appears to have been only a hiccup. Strong growth resumed last year in Europe's main markets, as the table shows.

In any case, the fallback had been confined mainly to West Germany and *Italy,* both performance-conscious markets. And, in both countries, the fallback was from quite high levels.

Big take-off

Even the UK, next to Switzerland the slowest starter in the diesel market, *is now seeing* a big take-off, even though from a very small base. In 1977, just 2,200 diesel cars were sold; in 1983 the figure reached 24,000. An towards the end of last year, sales were running a further 61 per cent ahead.

That the UK has been so slow to appreciate diesels is largely a function of the fact that petrol and diesel prices have been mainly on a par (unlike Italy, where *diesel* fuel is less than half the price of petrol); that about half of all new cars are bought by companies — a situation unique in Europe and which has tended to give fuel economy a low priority — and the absence of UK-built diesels giving the Government a disincentive to provide a fuel tax advantage to the diesel.

Such a move in the past might have promoted energy efficiency — but it would also have served to promote a lot of diesel car imports, too.

That situation is changing, however, with the introduction by Ford last year of a Dagenham-built diesel and Austin Rover's plan to launch a car diesel developed jointly with *Perkins* next year.

Motor industry monitors Automotive Industry Data conclude in recent report:

"In star k contrast to many industry forecasters, we have held long-term and consistent views that prophesied the growing use of the diesel engine as a *prime propulsion unit* for the car of the late 1980s, and more so for the new, environmentally cleaner cars that will be with us in the 1990s.

"Demand for diesel cars is clearly back on the path towards growth and this is bound to speed up with the introduction of lead-free petrol (planned to be freely available in the EEC from 1989 on) and the legislative need to fit costly and, energy-wise, wasteful catalytic exhaust technology to petrol engines."

Rapid growth is also being experienced in Japan, whose output has grown swiftly to the point where it already produces about half the world's output of light diesels—not just for cars, but for all kinds of other industrial applications. Japan's car diesel technology is now among the best in the world. Its products including Daihatsu's 1 litre turbocharged unit — which has all but eradicated the performance gap with a small petrol unit.

Planning Research and Systems, consultants who monitor closely diesel engine development, forecast that diesel sales in Japan will reach 550,000 units a year by 1990, with a 35 per cent market penetration in the small volume car sector.

Similar growth is being experienced in Japanese exports. Nissan's diesel sales in Belgium, for example, jumped from 20 per cent to 40 per cent of the company's total between the last quarter of 1982 and the same period of last year.

Exception

Volkswagen, however, remains Europe's leading diesel car producer, having sold more than 1m market-pioneering *diesel Golf's* since their launch in 1978.

So why is the U.S. the exception? A large part of the answer can be traced to General Motors. As the 1973 fuel crisis tipped the North American car market towards its worst recession for many years, the diesel appeared to be the ideal answer to fuel economy, particularly in a country where a 55 mph speed limit is rigidly enforced.

Many industry analysts forecast that diesels would account for 25 per cent of the U.S. new car market by last year. But *GM had a host of problems with* the V8 diesel unit it produced up to 1981, resulting in court action on behalf of nearly half a million owners.

The experience appears to have soured the entire diesel market. In any event, U.S. diesels have plummeted from a peak of *over half a million* to little more than a third that level.

The main European diesel models

	Model	1983 Output
Volkswagen	Golf	138839
Fiat	Ritmo	62746
Renault	R9	53818
Fiat	Uno	49771
Renault	R18	49281
Peugeot	305	47633
Daimler-Benz	240	44718
Daimler-Benz	300	40809
Opel	Kadett	33967
Opel	Ascona	32392
Ford	Sierra	29823

Source: Planning Research and Systems.

FORD ANNOUNCE THE FIRST DIRECT INJECTION DIESEL IN A VAN.

Don't be deceived by that familiar Transit bonnet line: beneath it lurks an economic miracle.

The first-ever direct injection diesel developed specially for the medium van. Test drive it, and you'll be so impressed by the way the 2.5 litre Di moves you could well miss what doesn't. The fuel gauge.

THE COMPETITION CAN'T COMPETE.

Even in mixed driving, semi-laden, Ford calculate a one-tonne Transit Di is capable of 36 mpg.*

Over 25,000 miles – less than a year's driving for many "trunking" vans – such miserly thirst makes the Di about £150 cheaper to run than the next best fuel efficient van on the market.

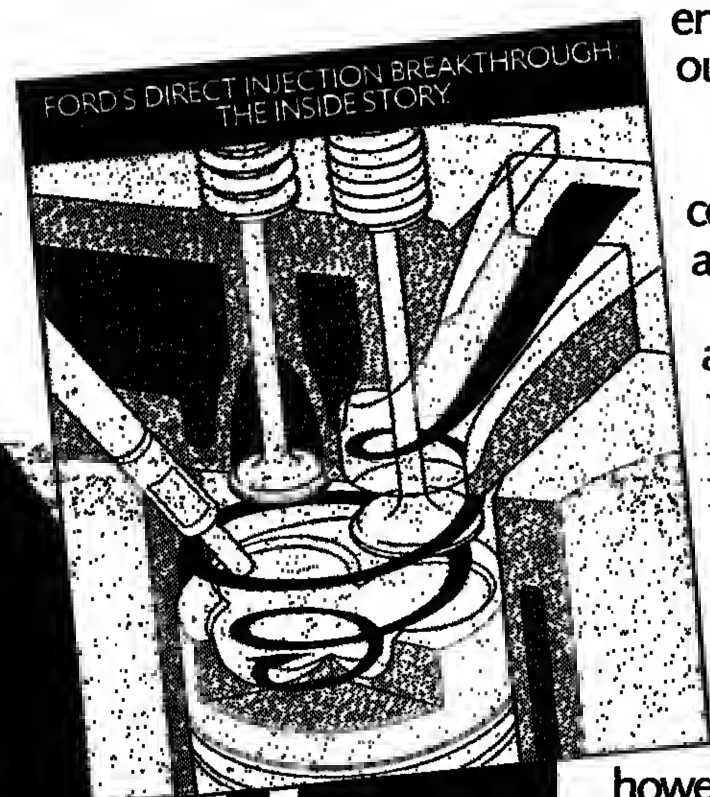
It really is like having every eighth gallon free.

It's also like having your cake and eating it. So simple is the new engine that it cuts overheads as well as consumption: so efficient is it that all the familiar drawbacks of diesel van operation are removed at a stroke.

MORE POWER FROM LESS FUEL.

Gone is the glow-plug, the waiting and wondering about ignition. Gone, too, is the ponderous two-stage combustion process of indirect injection, which blows so many unburnt hydrocarbons out through the exhaust and gives diesel its "smelly" reputation.

The development by Ford of "swirl" technology (see diagram) enables faster, more thorough mixing of air with fuel, and their combustion a split-second later in the one place where energy can be translated directly into output.



The piston crown.

You feel the benefits where they count most: under your right foot and in your wallet.

For while the Di sips less than any comparable diesel, it revs more freely and develops maximum torque higher in the power band. At the same time, careful choice of gear ratios means that it drives and accelerates like a petrol engine.

WHAT'S A GARAGE?

It's no quicker into the garage, however.

Simple oil and filter changes at 6,000 miles, and major service intervals only at 12,000, make the Di as cheap to run as it is to fuel.

More than £130 million has been invested by Ford in giving the Di its unique blend of economy with performance, so it's hardly surprising the others have some catching up to do.

With fuel the price it is, though, can you afford to wait?

FORD TRANSIT

Ford

FORD CARES ABOUT QUALITY.

*Fuel economy figures are an average of the ELA urban cycle and a constant 56 mph, and both performance and fuel economy are measured and calculated by Ford Motor Company Limited in line with EEC procedure 80/1268/EEC, or manufacturers published figures.

IT'S LIKE HAVING EVERY EIGHTH GALLON FREE.

Makers seek goal of direct injection car engine

Technical developments

LYNTON McLAIN

CURRENT technical developments in diesel engino design and development are concerned with three main issues: bow to reduce fuel consumption, bow to improve power output and, at the same time, how to meet increasingly stringent controls on exhaust emissions.

These problems are at their most acute in the current search for high-speed, light diesel engines with direct fuel injection for cars in place of indirect injection.

Ford already has a 2.5 litre direct injection diesel engine in production for use on its Transit light trucks and vans. This direct injection has a "toroidal bowl" combustion chamber, four fuel sprays and e high pressure rotating fuel pump from CAV.

The Ford ongine is not, however, siutable for cars. At 250 kilograms it is too heevy, although Ford could claim a "world first" in thet it is the first "high speed"—4,000 rpm—direct injection diesel to go into commercial production.

Programme

Perkins is developing a direct injectioo diesel ongine designed for cars in e joint £22m programme with Austin Rover. Tho engino is expected to be ready for full-scale production by the end of 1985 and Austin Rover may have cars available with the engine next year (1986). The engine is likely to be ono of the world's first mass-produced direct injection high speed diesels for cars.

The reason for the search for direct injection engines for cars is that they offer tho prespect of potential fuel savings that could be anything between 10 per cent and 25 per cent compared with indirect injection engines. Tho typical realistic figure put by manufacturers and researchers is around a 15 per cent cut in fuol consumption.

The potential prizes are considerable for the enginemaker which comes up first with a workable direct injection, high-speed diesel engine for cars.

In "direct injection" engines, diesel fuol is injected directly into the combustion chamber, rather than into e fuel/air premixing chamber.

The piston itsolf in a direct injection diesel engine will probably have been machinod to a special "bowl" shape at the top to allow for the most efficient mixing of the diesel fuel with swirling air for optimum combustion. Until now, bow to mix fuel and air inside the combustion chamber itself efficiently, has been the main stumbling block to commorcial production of the "DI" diesel.

Ricardo Consulting Engineers has developed the "advanced Comet" indirect injection diesel engine by taking advantage of miniaturised fuel injectors and igniter plugs.

Direct injection techniques were establisbed for lorries and trucks by the late 1930s. These engines are relatively low speed, have a low speed range and a comparatively low compression ratio.

Small, light, high-speed, high compression diesel engines for cars are a vory different proposition. Many of the difficulties in trying to adapt direct injection techniques to these high-speed engines stem from these difforences.

The prize of a 15 per cent reduction in fuel consumption is tempered by problems with engine performance, smoke, noise and gaseous emissions. Tho improved fuel performance stems from reduced internal losses in efficiency through different methods of mixing the fuel and tho air.

Ricardo Consulting Engineors, specialists in engine research and development of Shoreham-by-Sea, Sussox, showed thet the combination of reduced fuel pumping requirements with direct injection systems and reduced heat losses, and at higher loads, a better operating efficiency, could be ettributed to the higher rate of burn of the fuel end a more advanced start of combustion compared with indirect injection systems.

This higher rate of fuel burn in the direct injection engines and the more advanced combustion contributes to higher pressures in tho engine cylinders and emissions of nitrogen oxides (NOx) as well es extra noise especially where these used conventional multi-spray injection.

This conventional direct-injection system, based on a fixed-orifice injector for the fuel, results in "over-penetration of the fuel spray at low engine speed and under-penetration of the fuel at bigh speed," according to Mr Murray Scott, the head of light duty diesel development at Ricardo Consulting Engineers. This results in poor mixing of the air and the fuel.

Fuel spray

The use of "unit injectors," combined pumps and injector systems, can be used to generate very high pressures when fitted with stiff drive systems, to partially alleviate this uneven performance.

Tho problems of unburnt hydrocargon and NOx emissions bave led to research on ways of improving the design of the combustion chamber to cut down these exhaust by-products. Perkins worked on the "squisb lip" chamber and MAN of West Germany produced the controlled direct-injection design.

The approacb at MAN has concentrated on tho combustion process to give the correct distribution of fuel between the air and the cylinder wall at all speeds.

A special injector is necessary to control tho inlet of fuel spray and its penetration.

The controlled direct injection (CDI) system, using a variable-orifice nozzle to avoid the need for very high pressures, is being developed by MAN in collaboration with Ricardo Consulting Engineers. The system is being applied, experimentally, by Ricardo to the passenger car diesel engines of clients in the UK, Western Europe and Japan.

In the experimental CDI system for cars, the fuel injector sprays fuel along the wall of tho combustion chamber; fuel is then evaporated off the wall. The orifice is increased as engine speed is increased.

Further developments in the design of indirect injection combustion chambers aimed at getting improved fuel economy are also under way et Ricardo and elsewhere. The aim is to give diesel engine designers and users the option of using improved efficiency indirect injection systems where direct injection systems are not practical, or whore legislation forces a compromise between NOx emissions, fuel consumption and particular smoke emissions.

Other weys of improving the thermal efficiency of diesel engines (currently only about a third of the beat energy is convorted to mochanical energy, with a further third going out of the exhaust and a third eccounted for by the cooling system and by friction), inclodo thermal insulation of the combustion chamber, reducing friction in the engino and electronic control of the fuel injection system.

These developments have becomo more pressing for diesel engineers as the fuel economy of the conventional petrol engine has improved.

With direct injection systems for small to medium cars, beat losses are less, there is lower friction than with indirect injection, but these advances are achieved with considerably greater combustion noise, arising from the large amount of fuel in the chamber before combustion.

"Without any acoustic treatment, the engine is liko a machino gun and this can be a problem," Mr Murray Scott says. Also, tho end of the speed range bas to bo sacrificed.

Solution

Tho "ideal" solution is to use a variablo injection rate for the fuel.

High pressure is also necessary and "unit injectors" can be used to give this high pressure, but operators face the penalty of greater NOx omissions (up to 50 per cent more than with indirect injector systems), and more hydrocarbon emissions, unless the engine is de-rated in power. In genoral, direct injection engines offor improved fuel economy compared with indirect injection engines, but they bave greater problems with emissions.

The unburnt hydrocarbons arise because the injector on direct injection systems can produce residoal fuel in the combustion chamber. NOx emissions are the main exhaust problem, bowever, end are believed to be caused by the high temperatures of the combustion and the timing of the injection of the fuel in the operating cycle.

With indirect injection, on the other band, there is combustion in a shorter time and NOx emissions are reduced.

Research efforts to aid combustion and reduce unwanted emissions includo work on catalytically-controlled combustion and the use of platinum catalytic matrices in the combustion chamber, to allow lower compression ratios. Ricardo has developed a laser doppler anemomoter (LDA) to follow air motion in the cylinder. High speed flame studies using photography have also been developed to aid combustion research.

Other experimental work includos grooves around the piston, with ceramic fibres reinforcing the aluminium of the piston in tho area around the top of tho groove.

Tho idee of using ceramic fibres has been proven experimentally to improve the retention of heat in the combustion chamber and reduce heat transfer across the engine. This beat flow can also be cut at the exhaust port, by using ceramic port liners, cast in porous material in the head.

This approach allows a smaller radiator to be used and this could be 10 per cent smaller when a ceramic port liner is used to cut down the beat reaching the water.

Other experimental developments in the application of ceramics to tho design of diesel engines include the "ceramic cam follower" on a cast iron cam. This is thought to be too expensive for mass engines, as tho ceramic has to be polished with industrial diamonds. A ceramic cam follower has been run for 5,000 hours experimentally.

Ceramics have also been considered experimentally to try to cut the mechanical inertia of turbine rotors in turbochargers for small diesels. By making the turbine rotor lighter, a marginally higher response time can be achieved, so that after a driver selects the turbocharger, the delay before it comes into operation is reduced. Bonding the ceramic to the metal is a problem, however.

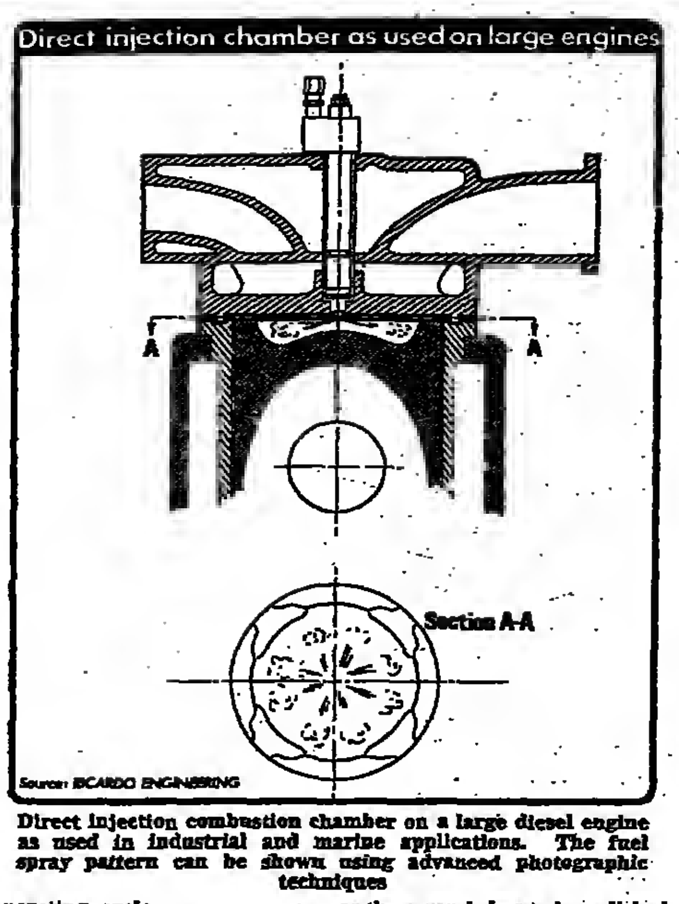
Inertia

The ceramic rotor does reduce the response time, but it does not get to the point of zero response time, the idea, as the inertia of the air column also has a slowdown effect.

Brown Boveri of Switzerland has developed the "Comprex" system to improve tho response time of turbochargers. This system uses the exhaust gas to push air into the engine, transferring the pressure of the exhaust gas to the intake air.

The response rate of tho engine is very high, but the ongine is more expensive than a turbocharger and is more bulky and more noisy. The system has been used on trucks in Finland, but the cost could be doublo the cost of a turbocharger, according to Ricardo.

In general, turbochargers are now a "must" on heavy duty truck engines to uprate the power output of the diesel while keeping the engine size down.



Direct injection combustion chamber on a large diesel engine as used in industrial and marine applications. The fuel spray pattern can be shown using advanced photographic techniques

Europe's largest producer is making a recovery despite market difficulties

Investment and earnings up

In West Germany tho largest diesel engine producing country in Western Europe, motor vehicle producers are major diesel engine makers and the car market in tho biggest single outlet. But outside this field, production is for a wide range of industries, many of which have been languishing in recession in recent years.

Overall production declined in 1983, but a recovery, even if moderate, has been evident in many areas since then.

Kloeckner-Humboldt-Deutz (KHD), one of the chief suppliers for outside industries, sees a slight increase in outlets for its high-speed diesel engines.

Total production of its high-speed diesel engines last year, including those for in-house use, exceeded the 1983 level, although it was still below tho 1982 output of about 150,000 engines. KHD expects the revival to continne this year.

However, the market for medium and large diesel engines remains difficult, KHD says, although the marine diesel engine market has shown signs of improvement.

Despite problems in diesel engines and other fields, KHD in 1983 improved its earnings performance — and lifted its dividend — following successful rationalisation measures.

It is also pressing ahead with major investment totalling about DM 1bn by the end of the decade, involving a new engine programme was well as modern and more flexible engino production.

Problems in the markets for marine diesel engines and large generator engines have contributed to the recent financial headaches of MAN of West Germany. The company felt the sever impact of these problems at the same time as it was faced with a sharp setback in markets for heavy trucks and buses.

MAN, however, has been heading back towards profitability after carrying out drastic restructuring measures in trucks and in large diesel engines, involving cuts in capacity and in the workforce.

Herr Otto Voisard, MAN's chief executive, has pointed out that the marine diesel engine market has been hit not simply by recession but by a structural crisis, with the shifting of large-scale ship-building away from Europe.

From last July, MAN has hived off its marine and other large diesel engine business to make it a more clearly defined operation, consisting of twin companies in Denmark and West Germany.

MAN has ceased production of larger marine diesel engines at its works in Augsburg and has reduced capacity in this field in Copenhagen on a basis for more economical operations—backed up by successful licensing operations elsewhere abroad. It is continuing to produce engines for medium-sized vessels and specialist shipping in Augsburg.

The Danish company has already been operating at a profit, but the result was more than offset by losses of its West German counterpart. MAN hopes that the two together will return to profitability in about two years—although the overall MAN group is hoping to break even in the present financial year

With the recession in agricultural equipment, the Neuss plant of International Harvester (IH) has seen its diesel engine production decline in recent years, reaching 35,000 in the financial year to October 31, 1983. But engine output showed a slight recovery last year, although it is still only running at about half of capacity.

Tho Neuss factory, as well as turning out diesel engines for its own argricultural machinery assembly, also supplies engines for International Harvester plants in France and the UK.

Rationalisation in the world agricultural equipment market resulted in tho recent takeover by Tenneco of major International Harvester interests in the U.S. and the UK, with Tenneco also taking out an option on the IH plants in West Germany and France.

The takeover has raised speculation about the possible future role of Cummins engines in International Harvester equipment, in view of the existing link-up between Cummins and J. I. Case, the farm equipment subsidiary of Tenneco.

But the Neuss subsidiary, which is profitable, sees existing delivery arrangements carrying on in the near future and is putting great store on its expertise to secure a continuing role.

John Davies

Development has to take account of stringent emission controls

Competition increasingly fierce

Industrial/agricultural equipment

IAN RODGER

THE BIGGEST user of diesel engines may be the car industry, but the real action these days is in tho markets for other vehicles, such as trucks and buses, and various kinds of industrial equipment.

The manufacture of diesels for cars is normally done in-house by tho car makers, so there is rarely a scramble among independent suppliers for the business. But in the truck and industrial equipment markets, compotition is fierce and getting more intense every year.

There is no mystery about this trend. Engine makers that have excess capacity, and that is just about all of them these days, are desperate to koep their volumes up, and so turn to the only open markets available, even if they are depressed and already oversupplied.

Moreover, surprising as it may seem, world engine-making capacity continues to increase, even though it is probably 25 per cent to 30 per cent in excess of market needs already.

Supplies

In the past year alone, Cummins Engine of the U.S. has started up a new factory in the U.S. with capacity for 230,000 ongines a year and Liebherr of West Germany has started to produce its own engioes (about 5,000 a year) for the first time rather than buy them from outside suppliers.

The markets of most interest to engine makers are trucks and buses, farm equipment, construction equipment, industrial equipment such as fork lift trucks and compressors, generator sets and boats. In Western Europe and the U.S., these markets absorb something like 2.5m engines a year, two thirds of which are in a farlly narrow power range between 50 and 300 horsepower.

However, almost all of them are over-supplied. World production of diesels for construction equipment, for example, dropped from 589,000 units in 1981 to 490,000 in 1983, according to Planning Research and Systems. Output for industrial equipment was down from 933,000 units to 865,000 over the same period and production for agricultural equipment was unchanged at 2.9m units.

There are varying degrees of in-house or captive production in these sectors, but it is especially strong in the truck eector where major suppliers, such as Daimler-Benz and Volvo, make almost all their own engines. In tho Western Europe truck and bus market, probebly less than a tenth of the markot is available to outside suppliers.

However, at the other end of the scale, most construction equipment, industrial equipment, generator set and boat manufacturers buy all their engines from outside suppliers.

Tho traditional main suppliers in theso markets are Doutz of West Germany and Perkins of Britain. In the construction and industrial equipment sectors, for example, Perkins and Deutz between them supply over 60 per cent of the engines in the 50 to 300 hp range sold in Western Europe. Thoy also have over 40 per cent of the medium-power generator set market. However, they are undor attack from an increasing number of other engine makers.

The new competitors are usually one of two types, the committed engine specialists, such as Cummins and Nissan Diesel of Japan, and what might be called the marginalists. These are companies that produce engines mainly for their own machines but seek to reduce the cost of excess capacity by selling in other markets as well.

The most important of them are tho Japanese producers, such as Isuzu, Mazda, Kubota and, recently, Komatsu. The non-Japaneso include Deere, the farm equipment group, Ford, Caterpillar Tractor, Daimler-Benz and many others.

Each has a differeot strategy for survival. The Cummins entry into this area, for example, is being made via a joint venture with J. I. Case, the farm and construction equipment maker. Case will provide a base load for the engines of about 40,000 units, rising perhaps to 80,000 units as the machines of Case's recent acquisition, the farm equipment division of International Harvester, are added to the line.

Meanwhile, Cummins is working patiently on two other fronts. It is trying to convince operators of small vans in the U.S. to convert from gasoline to diesel engines and has a few trial programmes going. Also, it wants the general dealers for its large engines to start selling its small ones as well. The problem bere is that many of these doalers now represent Perkins in tho medium engine range.

Perkins doubts that many of them will give np a well-accepted engine line plus the substantial spare part business that comes with having an established customer base in exchange for an untried product line with no base.

Strong base

Iveco, a Fiat subsidiary, has e very strong base in tho Fiat group, selling some 220,000 engines a year for use in Iveco trucks and fork lift trucks, some Fiat cars and vans, Fiat tractors and Fiatallis construction equipment.

The largest single outlet is the Iveco truck operation, which takes about 80,000 engines a year, and the company is devoting most of its development effort to keeping its truck engines competitive. It is also trying to wean customers of its Magirus trucks from Deutz air-cooled engines.

Mr Heinz W. Hehn, executive vice-president of Iveco, says air-colled engines are good for niche products, such as military trucks and some off-highway applications, but heve no significant advantages in ordinary use. "The proportion of air-cooled engines (now 15 per cent) in oor trucks will not increase," Mr Hahn says.

Iveco decided nearly three yearsa go to set up the engine business as a separate profit centro within tho company and try to develop outside sales of loose engines. At first glance, it would seem that its opportunities wero considerable, as it had a wide range of engines, ranging from 40hp to 500hp and a proven record of performance.

But Iveco has found it difficult to find new markets, partly because it does not have an extensive network of general dealers around the world. The company bas thus concentrated on the Italian market, and done well, claiming to have boosted its market share there from under 30 per cent to over 40 per cent since 1981, mainly at the expense of Same, the Italian tractor producer, and Perkins.

Deere's output, from plants in the U.S. and France, is about 140,000 engines a year, of which only 10,000 are sold outside the group, mainly for electricity generating sets. The company has become more interested in outsido sales in the past couple of years largely because of the decline in its own needs as farm equipment sales have slumped. Its main engine marketing effort so far has been in the U.S.

"It's a matter of developing a market opportunity," David Willis, Deere's director of corporate planning, says. "Since the farm machinery business is in a slow growth period, it is not going to get us back to the volumes of the 1970s." He denied being daunted by the strong competition in the engine business. "I would be more nervous if our management wanted to go into microchips or computers."

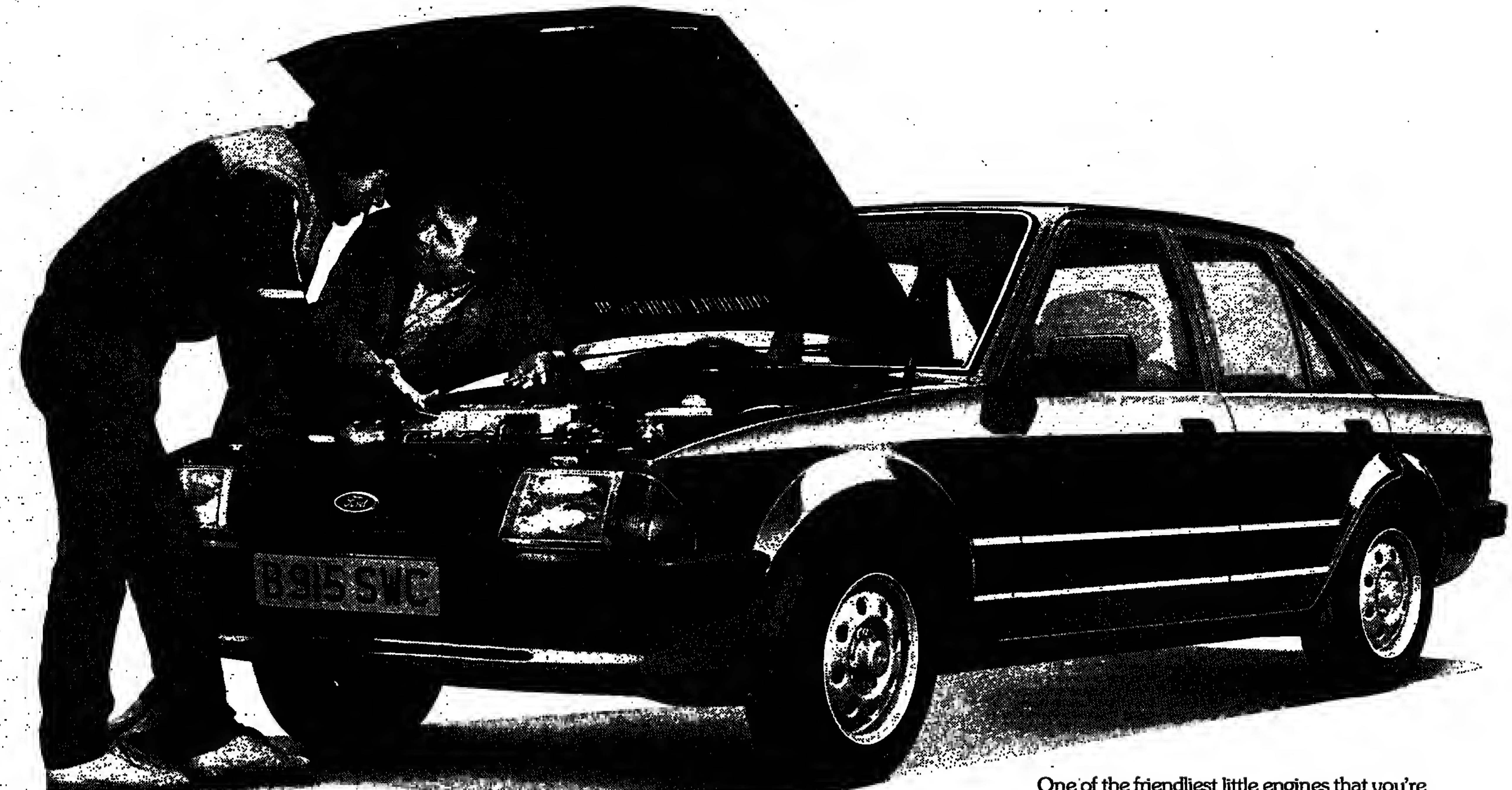
Marginal producers like Deere can be more flexible in their pricing policies than the committed producers because they cover their fixed costs on their in-house demand. Deutz says it has been profitable throughout tho recession, but even though demand has recovered a bit, margins are getting worse.

"It is because of tho prices of the marginals," Petor Garner, managing director of Deutz in Britain, says. "They can't be selling profitably." Perkins agrees, but claims not to be too concerned about them. "They are a nnisance factor, not an nndorlying threat," a company official said.

These companies count on their long-term commitment to the industry plus their large international distribution networks to help them retain most customers. Also, many products, such as excavators and tractors, are designed with particular engines in mind and it is not easy to switch in a hurry.

"The marginals can get some of the generating set business, but not mucb more," the Perkins official said.

It remains to be seen if be is right.



Over 70 mpg.* Over 90 mph.† What on earth has it got under the bonnet?

One of the friendliest little engines that you're ever likely to meet.

It's incredibly economical. Even around town it does over 50 mpg.* Yet it's surprisingly nippy. It can cruise in the eighties and overtake effortlessly.

And it's practically indestructable.

What is it?

Ford's remarkable new 1.6 Light Diesel.

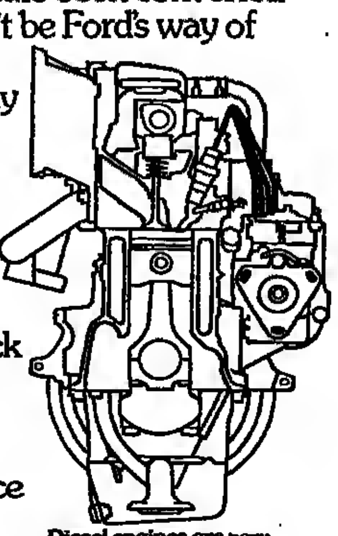
But wait. Aren't diesel engines usually a bit too noisy for the private motorist? Don't they tend to be a little smokey? And aren't they sometimes rather difficult to start up in the morning?

Not this one.

You see, it's not just a commercial diesel that's been adapted for private use.

Nor is it a petrol engine that's been converted to run on diesel. That wouldn't be Ford's way of doing things.

Our new diesel is expressly designed for our three front wheel drive cars; the Fiesta, the Escort and the Orion.



Diesel engines are very simple, very robust, and very cheap to run. They have no distributors or spark plugs. Instead they rely on very high compression ratios (21.5:1) to ignite the fuel.

The diesel versions of these cars are great little personalities. They make a lovely happy sound. They pack bags of punch. And they always feel absolutely tireless.

Like little terriers.

Any Ford dealer can service them. (Standard services 12,000 miles). And have you noticed how many garages now have diesel pumps on their forecourts?

We know you're sceptical, most people have never really thought of buying a diesel.

But since you're interested enough to read this far, why not go just a little further; pop down to a local Ford dealer and arrange to have a go in one.

Incidentally, it won't just be the engine that impresses you. Our diesel models are just as comfortable and well equipped as our petrol models.

The new Ford 1·6 Light Diesel. Quick, quiet, clean.

*Govt. fuel economy figures – mpg (litres/100 km). Fiesta 1.6 diesel: constant 56 mph (90 kmh) 74.3 (3.8), constant 75 mph (120 kmh) 50.4 (5.6), urban cycle 56.5 (5.0). Escort Saloon 1.6 diesel: constant 56 mph (90 kmh) 70.6 (4.0), constant 75 mph (120 kmh) 48.7 (5.8), urban cycle 51.4 (5.5). Orion 1.6 diesel: constant 56 mph (90 kmh) 72.4 (3.9), constant 75 mph (120 kmh) 52.3 (5.4), urban cycle 51.4 (5.5). †Ford computed top speed, 1600cc diesel saloons; Fiesta 92 mph, Escort 91 mph, Orion 93 mph.

Ford cares about quality. Ford

DIESELS 6

The performance and prospects for some of the major engine producers are reviewed here and on the next page

Rolls move wins new sales worldwide

PERKINS ENGINES, once called the jewel in the crown of the Massey-Ferguson farm equipment group, is beginning to show some sparkle again.

Its production volume was up 18 per cent last year, and its improved profitability kept Massey from incurring a fifth year of losses. Also, the Peterborough, England-based company bas recently begun to recruit apprentices for the first time in over two years.

Perkins, one of the leading world manufacturers of diesel engines for off-highway vehicles and industrial equipment, lost a lot of its lustre in the late 1970s and early 1980s as its markets alumped and the parent company went through a succession of financial crises.

Output at Perkins' Peterborough factory tumbled from 245,000 engines in 1979 to only 130,000 in 1983, and the group's workforce was cut from more than 13,000 to 5,600. Financially, Perkins was said to be just breaking even through most of this period.

Late in 1983, things began to improve, the largest single boost coming from the acquisition of almost all the engine business of Britain's J. C. Bamford Excavators. JCB buys ebout 8,000 engines e year.

Early last year, Massey backed Perkins in acquiring the £20m Rolls-Royce diesel engine business from Vickers. Rolls engines, which range from 200 hp to 1,200 hp and are used mainly in heavy trucks and military vehicles, complement the Perkins range of 30 hp to 300 hp.

More than 80 per cent of Rolls' engines were sold in the UK, and Perkins, wbich bas 4,000 sales and service outlets around the world, figured it could add significantly to the engines' export sales. Company officials say this has already proven the case, with significant new sales won in West Germany, Australia and the U.S.

Some observers have speculated that Perkins' move into bigger engines was a form of retaliation against Cummins' move with its new B and C series into the 50 hp to 250 hp area wbere Perkins is strong. Perkins says it bas no intention of trying to take on Cummins heed-to-head in the U.S. company's stronghold, the North American truck market.

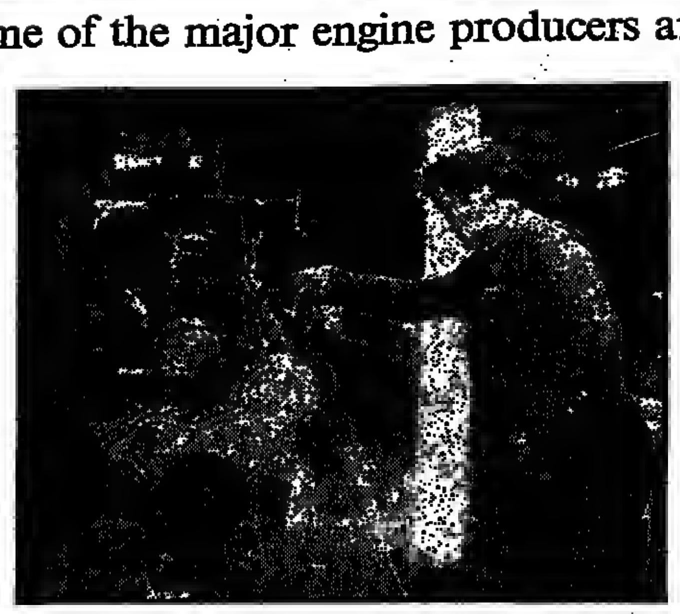
It wants to build on Rolls' strength in the U.K. truck and military market and develop sales for e variety of purposes, such as generating sets and boats, in most cases with its existing customers both in the UK and overseas. However, it is also taking greet delight in displacing Cummins engines from a few large Massey-Ferguson four-wbeel-drive tractors.

It bas often been suggested that because of Massey's financial difficulties, Perkins has not been able to invest enough in recent years on updating its products. Again, the comparison with Cummins stands out, the American company having invested $800m on developing new products and modernising others in the past nine years.

Perkins officials point out thet a lot of Cummins' spending has gone into building new factories to produce its new engines. "Our product development spend has been about the same as theirs bnt it has been spread out over e longer period," Mr John Devaney, managing director, says. He claims that existing Perkins engines in the 50hp to 250hp range are very competitive with the new Cummins B and C series.

Perkins did develop a new series, called Q14, ranging from 160 to 240 bp, a couple of years ago, but found that in the recession customers were not willing to pay more for edvanced combustion and fuel injection systems incorporated in it, and so it bas not been put into prodnction.

The company has also been spending heavily on improving its manufacturing facilities at Peterborough. Flexible antomation has become a major part of the company's strategy for remaining competitive in its many markets. Given tbe excessive amount of competition in its range of engines and the lack of growth in most markets, the directors believe the keys to success are being able to produce higb-quality products as chesply as possihle and deliver them quickly.



Spraying paint on to a completed engine after assembly

In 1982, it installed a transfer line for cylinder heeds, e £6m flexible machining system for balancers and e £400,000 heat treatment line for crankshafts. Last year, it unveiled e £2.5m eutomated storage end retrieval scystem for components and e £1m robotised assembly line for cylinder beads.

Perkins and its many licensees around the world have held on to their leading positions in many equipment markets during the recession. The company claims an 11 per cent share of world markets other than cars for engines in the 30 bp to 300 hp range, with lerge shares in far mequipment (15 per cent), fork lift trucks (30 per cent) and pleasure boats (14 per cent). About 40 per cent of its engines go to Massey.

Perkins has tried to enter the car market, one of the few diesel markets showing any growth, through joint ventures, bnt without much success so far. A $222m venture with Cbrysler to dieselise one of the U.S. company's petroi engines was cancelled only e few months after it was set up in 1982. Last year, a venture with Land Rover to dieselise the V8 Rover diesel was cancelled, apparently for lack of demand.

There remains a project with Austin Rover to produce a direct injection diesel version of Austin's "O" series car engine, dne to be launched late this year in the Maestro. Perkins says it is on schedule for its part of the project.

Ian Rodger

Very high level of self-sufficiency

KOMATSU is known worldwide as e manufacturer of earthmoving and construction equipment. Highly successful in its domestic market in Japan, it has developed a formidable reputation in its export markets, taking on the mighty Caterpillar and continuing to operate profitably through the difficult years of the early 1980s, when most of its competitors were battling to survive.

Founded in 1917, Komatsu is now a complex manufacturing group with a turnover in excess of $3,000m and a very wide range of products.

A feature of Komatsu's manufacturing operations is the very high level of self-sufficiency. With its own foundry and forging facilities, its own manufacture of CNC machine tools, automated manufacturing systems and robots, Komatsu not only makes most of its own components but is able to maintain a high level of control over them, an achievement recognised in the Japan Quality Control Award in 1981.

Komatsu started production of its own diesel engines for bulldozers in 1947, but it was not until 1976 wben Komatsu diesels were offered in generator and compressor sets, that the company first looked to applications outside earthmoving equipment. At the same time, engines were first offered to Japanese generator set manufacturers on an OEM basis.

As Caterpillar did before it, Komatsu discovered that it is hard to beat the earthmoving and construction equipment husiness as a test bed for diesel engine development. In addition to durability (Komatsu'a engines are designed to operate for up to 12,000 bours before overhaul depending on size), the construction sector puts a premium on low fuel consumption, low-speed torque, high horsepower and low noise levels.

Komatsu's engine range stretches from 35hp for the smallest four-cylinder, 3.7-litre unit up to 1,500bp for the 46-litre V-12. There are five series based on cylinder bores of 95, 105, 125, 140 and 170mm respectively. Komatsu claims each to be a world leader in its class for fuel economy.

Typical of Komatsu's recent products is the 11-litre 125 series unit. This is an in-line six-cylinder with direct injection and was developed for earthmoving equipment, but is also offered for generator sets, compressors, construction equipment, tractors and marine propulsion.

Fuel consumption of 146 g/bp.hr bas been achieved at the rated power of 370bp. A feature of the engine is the advanced design of modular cast iron pistons whicb contribntes to both the high fuel efficiency and low noise.

A high level of surface finisb in the cylinder parts is achieved using Komatsu's KY process, whicb is also claimed to improve efficiency. The engines feature individual cylinder heads of high-strength alloy cast iron which emphasises the heavy-duty characteristics. Heads, blocks and pistons are all made at the Oyama foundry which is the largest diesel engine foundry in Japan.

Komatsu produces ebout 40,000 engines each year et its Oyama plant. Flexible manufacturing systems have been installed to enable a wide range of models to be manufactured at a much lower cost than could have been achieved with transfer machining lines which would need a minimum of 30,000 units per annum of each model.

Using its own machine tools, Komatsu combines a relatively small number of FMS units with computerised quality control procedures and an automated robotics conveying system. Block-bead machining requires only two full-time workers.

In one flexible bead machining line, three engine series can be accommodated. Twenty-one different machine tools are involved and the line can operate unmanned for an eight-hour shift.

Komatsu is fully committed to product development, with some 1,500 of its total workforce of 18,000 and up to five per cent of its total revenue associated with research and development. On the engine front it is working on Rankine bottoming designs, turbo compounding and uncooled adiabatic engines and also on high pressure electronically-controlled direct injection.

Currently about 10 per cent of Komatsu's engine production is sold to OEM customers. Third party sales began in Japan but over the last five years Komatsu has been looking at the major consuming markets of the U.S. and Western Europe. An engine and component market development department bas been set up in Tokyo to co-ordinate overseas marketing. The move into engine sales has been carefully paced and a great deal of market research has been undertaken.

Quality and performance, rather than price, have been emphasised although Komatsu's advanced manufacturing techniques are important in controlling costs. In 1983 the Komatsu American Corporation, established an engine and component marketing department in Chicago and the U.S. is clearly seen as the area of major opportunity.

Komatsu's first big success was to achieve an exclusive supply contract for engines from 100-1,500hp to the Onan Corporation, in competition with Cummins, Caterpillar, Detroit Diesel and Mitsuhishi. Other cantracts ere expected.

In Europe, whicb is e tougher proposition, a similar engine and component marketing department is abont to he set up. Komatsu's very strong network of construction equipment service outlets is a major benefit which gives the company ready-made facilities for supporting its engine sales.

And no[illegible]. Over the past five years the same argument—if it is good enough for earthmovers it is good enough for almost anything—has been applied to other Komatsu products. As a result, a wide range of heavy-duty axles, transmissions and hydraulics components ere being offered to OEMs across the world with a proven record of quality and reliability.

In addition to its own equipment, Komatsu has strong links with the Cummins Engine Company dating back to 1962 when an agreement was concluded to manufacture engines under licence. Currently the N743 and N855 series are manufactured at Oyama at a rate of abont 10,000 a year.

These are offered as options in Komatsu equipment and also in the Japanese OEM market by the joint subsidiary Komatsu-Cummins.

Komatsu also manufactures the cylinder heads, connecting rods, and other components for Cummins K12 and K16 engines built in Daventry, UK, and heads and blocks for the U.S.-built K6 unit.

In addition to manufacturing under licence, Komatsu purchases np to 300 K and 1710 series engines from Cummins each year for its large construction equipment.

Mike Smith

Mike Smith is directors of the automotive and engine division at Planning Research Systems

In-house output begins

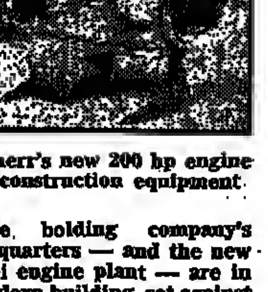
THE LIEBHERR construction equipment and engineering group recently launched a new operation—the manufacture of its own diesel engines. At a time of surplus capacity in many other companies' diesel engine plants, Liebherr has embarked on some in-house production of its own as part of its business strategy.

The move, initially on a relatively small scale, is nevertheless significant. It arises from Liebherr's efforts to underpin its construction equipment technology in the face of intense competition in the indnstry.

The Liebherr venture has come while existing diesel engine makers — ontside the passenger car field — have been feeling the effects of recession in a variety of important markets in West Germany and elsewhere. Many engine makers, however, have been successfully grappling with this challenge, arising from weaknesses in such markets as construction machinery, commercial vehicles, agricultural equipment and shipbuilding.

From its West German origins, the Liebherr group has grown into a wide-ranging international business, with the threads being drawn together now in e newly-formed holding company based in Switzerland.

The group, founded and headed hy Herr Hans Liebberr, reported consolidated world sales revenue of DM 2.4bn ($750m) in 1983, primarily from construction machinery, but also from refrigeration, machine tools, aviation technology and other engineering work.



Liebherr's new 200 hp engine for construction equipment

The bolding company's headquarters — and the new diesel engine plant — are in a modern building, set against e background of mountains, at Bulle in the Swiss canton of Fribourg.

Diesel engine production started up early in December and the company says output so far is very small. The initial capacity of the plant is 4,500 engines a year, but this could be extended to 9,000 a year with little extra investment.

How quickly capacity utilisation builds up will depend to some extent on the state of the construction equipment market.

Liebherr is turning out four models in the initial phase, four and six-cylinder engines ranging between 60 kW (80 horsepower) and 147 kW (200 hp). At an unspecified time in the future, the company intends to add a second series of diesel engines with power between 184 kW (250 hp) and 440 kW (600 bp).

The diesel engines are primarily for inclusion in Liebherr's own range of earth-moving equipment.

Until now, Liebherr has obtained engines for such equipment from outside suppliers — Kloeckner-Humbold-Deutz (KHD), Daimler-Benz and Cummins. So far, Liebherr says, its in-house production has not led to any considerable reduction in purchases from these suppliers.

Liebherr decided to embark on its in-house development because engines offered by outside suppliers for its earth-moving equipment were mostly derived from motor vehicle engines and therefore represented to some extent "compromises" in development.

It decided to make a diesel engine designed purely for use in earth-moving equipment working under difficult conditions. "Our aim is to increase the life of the engines and to facilitata maintenance," the company says.

Liebberr employees, drawing on advice from outside suppliers, developed the first series of new engines in a period of three years.

The business philosophy behind the project is that Liebherr should offer a total package of diesel engine plus gearing system and hydraulic components from its own production—a concept which it summarises as "Gesamtantrieb aus einer Hand."

John Davies

Earnings from U.S. sales

CUMMINS ENGINE, the largest independent diesel engine maker in the world, is beginning to see the rewards of nine years of heavy investment and restructuring of its activities.

Its revenues surged in 1984 on the strength of the U.S. heavy duty truck market, where it makes about a third of its total sales. The company's total sales probably reached $2.3bn, up some 40 per cent from the depressed 1983 level.

Net earningsgre weven more rapidly, probably exceeding $170m compared with only $5m in 1983, thanks to the company's substantial cost cutting, programme of the early 1980s

The payoff from major investments in new engines began to appear in 1984. The most important of these is the 10-litre engine, introdnced in 1982 partly to strengthen the lower end of the company's truck engine range, and partly to appeal to European truck and bus builders whose products tend to be slightly lighter than those of U.S. builders.

It is obvious already that both goals are being echieved. The company's share of the U.S. heavy truck engine market has risen to 60 per cent last year from under 50 per cent in 1980. In the UK, Cummins's share of the heavy truck market bas grown even faster since the introduction of the 10 litre.

In the 29 ton-plus eight-wbeel rigid class, its share has doubled from 7.2 per cent in 1982 to 14.1 per cent last year. The 10-litre has also been adopted by four bus manufacturers.

Tha company's other major new project is a series of engines ranging from 50 to 250 horsepower, the so-called B and C series. It was developed in a $350m joint venture with J. I. Case, the U.S.-based farm and construction group, and represented for Cummins a first attempt to penetrate the large and highly-competitive business of supplying engines to makers of medium-sized industrial equipment, such as compressors and excavators, as well as light trucks and vans.

The first engines in the series went into production in the U.S. late in 1983 on a limited basis, and various vehicle and machine makers, including Case, have been trying them out.

Plans for production overseas originally centred on e joint venture with Leyland of Britain under which Leyland would assemble engines at its Bathgate plant for both its own and Cummins' needs. However, Leyland decided last spring to close the Bathgate plant, whereupon Cumins began to consider assembling B and C engines at one of its three UK plants.

Within weeks, Case said it would prefer to buy B and C engines from Cummins rather than make them at its Huddersfield plant, and so Cummins decided to go ahead with a £12m investment to re-equip its Darlington plant for the job.

The other large boost for the B and C series came in November when Tenneco, Case's parent company, decided to buy the farm equipment business of International Harvester. IH makes some 40,000 tractors and combine harvesters a year, and Case will gradually convert them to accept the B and C series engines.

At various times in its history, Cummins has felt vulnerable because of its independence and its high degree of specialisation. Virtually all its revennes come from sales of large diesel engines and related products, such as turbochargers.

Moreover, it is heavily dependent on sales of one series of engines, the NH 14-litre series, from 240 to 475 hp, in one market, that of U.S. trucks. It became particularly nervous in the early 1980s when three integrated European truck makers, Renault, Daimler-Benz and Volvo, established beachheads in the U.S. market through acquisitions.

However, the company is now feeling highly confident. It believes its heavy investments in developing new engines and modernising others in the past few years have put it in a stronger competitive position in its traditional market and will help it become more successful in others.

Its great hope remains to become the main engine supplier to a significant European truck builder. European truck builders tend to make their own engines, and Cummins has been trying for years to convince many of them that their trucks would be more competitive if they had modern Cummins engines in them. The boost given by the 10 litre to ERF and other British builders should help the company's marketing efforts.

Ian Rodger

Facing wrath of consumers

ACCORDING to some of its critics, General Motors, the world'a largest automotive group, has almost single-handed destroyed the burgeoning market for diesel cars in the U.S.

Sales of GM cars with diesels bave crashed following the publicity given to problems with a 5.7 litre, V8 diesel engine built by its Oldsmobile division and installed in Cadillac, Chevrolet, Pontiac, Buick as well as Oldsmobile models from 1978 to 1981.

There was a general outcry and GM recently settled in a New York Federal court for $22.3m a legal action brought on hehalf of 450,000 owners of cars and light trucks which used the V8.

The critics accused GM of hastily converting a V8 petrol engine to meet a sudden demand for diesels rather than designing a diesel engine from the ground np. Irate customers claim a long list of defects appeared: faulty crankshafts, failed fuel-injection systems, bad filter mechanisms, blown bead gaskets and cracked engine blocks.

And certainly the prospect that forecasters were predicting, that one quarter of the U.S. car market would turn to diesel, has gone. Diesel car sales in the U.S. fell hy 45 per cent, from 313,405 in 1982 to 173,275, in 1983. (The peak year for diesel car sales in the States was 1981 when they totalled 509,135.)

GM suffered mnch more acutely than the market as a whole. Chevrolet diesel car sales fell by 82 per cent to 4,875; Cadillac's by 76 per cent to 3,985; Pontiac's by 64 per cent to 2,290 and Buick's by 63 per cent to 11,121. As for Oldsmobile, GM's car diesel "leader," it reported a 56 per cent fall in sales to 33,175.

Oldsmobila bas now "fixed" the V8 engine and the latest version hes received favonrable comment from diesel car enthusiasts. Even so, tha division is producing only 150 a day compared with the 1,600 a day capacity—only 2 per cent of Oldsmobile's orders are for diesel cars these days.

GM has decided to halve the diesel capacity and will spend $165m to re-equip half the Oldsmobile plant to produce a new four-cyclinder petrol engine instead. And the company said recently it will stop supplying the 5.7 litre and 6.3 litre diesels for cars from next autumn.

GM's diesel engine problems do not stop with the Oldsmobile debacle. The company's Detroit Diesel Allison subsidiary, responsible for commercial vehicle and industrial power units, has also suffered a substantial slide in market share in the U.S. following problems with a mainstream product, the so-called Silver 92 diesel engine.

DDA once accounted for 28 to 30 per cent of the engines used in trucks in the U.S. market. But its penetration is now less than half that level because the haulage industry is absolutely unforgiving if an engine gives trouble in any way, as was the case with some of the 92 series diesels.

DDA is now part of GM's "world truck and bus division" and the executive vice-president in charge, Mr Don Atwood, says the company is developing a new range of diesel engines for launch in the next year or so.

He claims the new diesels will set new, high standards for the industry in terms of fuel economy and reliability for use in heavy trucks and for some off-road work.

GM's UK-based Bedford truck business also suffered a major setback in 1983. But this had nothing to do with product problems. Some of Bedford's important export markets went sour because they could not raise the foreign currency to pay for commercial vehicle imports.

Bedford's output of truck diesel engines fell from 16,200 in 1982, already a depressed level, to 15,500.

Meanwhile, output of cars and vans using diesel engines produced by GM's West German subsidiary, Opel, in 1983 dropped from 123,000 in 1982 to about 105,000. In some European countries diesel fuel did not look such a bargain as previously, so demand for diesel cars eased back.

Opel's total diesel engine output—it produces a 1.6 litre unit at Kaiserslautern and 2.3 litre turbo-diesels at Russelsheim — was 7 to 10 per cent above Opel diesel van and car sales because of replacement demand and vehicles sold under the Vauxhall badge by GM in Britain.

Kenneth Gooding

Late car entry a 'world first'

AT THE TURIN Motor Show late last year, executives from Austin Rover had a highly embarassing experience. A diesel version of the company's Maestro hatchhack was being prepared for leunch on one of the stands. The only trouble was that it was not Austin Rover's. It was being launched by FNM, an Italian company which had used its own engine.

Since the conversion was "unauthorised," Austin Rover at first insisted that the vehicle be removed from the show. In the end, a compromise was reached whereby the car was covered, the identifying hub caps removed—but a hole cut in the bonnet so that the car'e diesel innards could be displayed.

It was embarrassing for Austin Rover because the UK company is going to be the last of the British-based "Big Three" carmakers to launch a diesel model into the volume car market—and by a lengthy time margin.

Vauxhal/Opel launched its diesel Cavaliers and Astras (using a West German-built diesel version of GM'e "Family Two" engines) in 1982. Ford Fiestas, Escorts and Orions were launched last spring with the 1.6-litre diesel engine which Ford now makes at Dagenham after a £140m investment (Dagenham also supplies Ford's Continental plants with the unit).

It will be next year before Austin Rover arrives in the market, which is later than originally envisaged under the collaboration deal with diesel specialists Perkins through which it is being produced.

Another minor source of embarrassment: the only diesel car that Austin Rover bas in its range, the executive-sector Rover SD Turbodiesel, also uses an engine provided by an Italian diesel manufacturer — VM. That deal is an official one; the car was launched over two years ago to tap the growing diesel market on the Continent as petrol prices and tax régimes have become more punitive for larger cars.

But it was supposed originally to have been a stop-gap, as the Rover would sensibly have used a dieselised version of the petrol-driven Rover V8 which Freight Rover was working on, also with Perkins — the "Iceberg" project.

In fact, though neither side has ever officially admitted it, work on the project was left uncompleted last year.

Ona last bit of embarrassment: the Perkins-Austin Rover diesel waa originally scheduled to appear this spring. And at the Birmingham Motor Show in October there was e flurry when a Perkins executive was reported to have said that Perkins would market the engine itself unless Austin Rover got a move on with its side of the project.

It was all e misunderstanding. Since Austin Rover will be providing the bulk of the components, Perkins could bardly have gone ahead on its own.

All these minor incidents, bowever, should be more than offset when the diesel Maestro, Montego saloon, and possibly XX executive car — being developed with Honda — make their appearance.

This is because Perkins and Austin Rover believe they will be chalking up a "world first" in launching a direct injection diesel for a car.

Ford did launch a high-speed, directly injected diesel in its Transit van last year; but it is, after all, for a commercial and Ford has given no indication that the 2.5 litre will be used in its cars range.

The advantages of direct injection over indirectly-injected diesels are that fuel economy should be et least 15 per cent hetter, the fuel hurned more cleanly and thus with fewer emissions, and starting made easier.

Engineering sources close to Austin Rover suggest, however, that there should be a performance benefit too. In turbocharged form the diesel, which is based on the Longbridge-built "O" series engine, is said to be producing nearly 100 bhp from its 2 litres—well above the current norm.

At the time the deal was announced in 1982, Mr Harold Musgrove, Austin Rover chairman, said cars fitted with the diesel should be capable of *averaging* 60 miles per gallon.

With it fitted to its medium-sized volume cars, and its recently-lauched Maestro van, Austin Rover hopes to win a sizeable part of e market which is taking off rapidly in the UK, elheit from a very small base.

Mr Sam Toy, chairman of Ford of Britain, predicts that diesels could be taking 10 per cent of the total market by the end of the decade. One consulting gronp specialising in engines, Planning Research and Systems, suggests the penetration by then could be substantially higher.

What Austin Rover will be looking to see—and something which is being wetched by the entire commercial vehicle industry—is whether the Government might decide to end its neutral stance on diesel fuel pricing once Austin Rover Group (ARG) is in the market.

There is little price advantage for diesel in the UK on a per-gallon basis at the moment—in contrast to Italy, where it costs less than half the price of petrol—but as an energy efficiency measure, the opening of a price gap on the fuel could accelerate diesel car numbers significantly.

BL's commercial vehicles arm, Leyland Vehicles, had to retrench from one planned area of truck diesel production last year. It had been cellaborating with Cummins on developmant of a B series diesel, for fitting to trucks of 6.5 to 16 tons, which under the partnership deal would hava been produced by LV under licence at its Bathgate plant in Scotland.

However, the very beavily-depressed nature of truck markets and cash problems of the loss-making LV has led it to announce the closure of Bathgate next year. So Cummins is investing £12m to produce the engine itself at Darlington in 56-180 bhp forms. The units should go on sale in 1986-87, and may be bought in by LV.

John Griffiths

Strong move into car market

FORD WAS responsible for two significant developments in the ideset market last year. In April, it launched the first of its Fiesta, Escort and Orion models to be fitted with its new 1.6-litre diesel engine, thn subject of a £140m investment at Dagenham.

The UK engine plant, output of which is already being expanded from 150,000 to 200,000 units a year, is the sole source of supply for all Ford's Continental factories building the diesel cars.

The 1.6 engine represents Ford's first substantial move into the car diesel market in Europe. Ford offers diesel versions of the larger Sierra and Granada models, hut these use engines bought in from Peugeot, and have been a relatively marginal element in Ford's total sales.

Already the impact of the 1.6-litre unit in one important market, the UK, has heen substantial. Ford, despite coming under increasing pressure from Vauxhall/Opel and BL, remains the clear new car market leader, with a share of about 27 per cent. So it was obvions that if any single manufacturer was going to act as the catalyst for injecting real life into a UK diesel market which has been extremely slow to develop compared with most Continental markets, it would be Ford.

Already, the various Ford models have become the best selling diesel cars in the UK—helped by various optimistic appraisals by large fleet operators of the likely financial savings to be achieved by running diesel rather than petrol-powered cars. (One recent report by Hertz concluded that some models could save operators up to £3,000 per car over four years and 100,000 miles.)

But Ford reckons that its most popular application of all will be in car-derived vans (namely the Escort and Fiesta) in market share, if not necessarily unit, terms.

It has good reason to believe that this will be the case. It is provided by General Motors' UK commercial vehicles subsidiary, Bedford, which introduced a diesel-engined version of the car-derived Astra van well ahead of Ford, in 1982. The diesel Astra's share of total Astra van sales has quickly shot to more than 45 per cent of the total.

Ford's other major diesel development has been in purpose-built, medium vans. Ford's Transit van, for years the biggest selling single commercial vehicle in Europe, began to ba fitted last year with an optional 2.5-litre diesel which Ford could claim to be a "world first," in that it was directly injected.

The advantages of direct injection are clearcut: they are 15-20 per cent more fuel-efficient, start more easily, burn with fewer emissions and can be more powerful than conventional, indirectly-injected engines (where the fuel and air are pre-mixed before entering the combustion chamber).

They are not new in heavy truck applications, where large capacity, low-revving and turbo-charged engines are used. But direct injection units heve proved extremely difficult to engineer for light commercial and car use, where considerably higher revs are needed and where noise suppression is important.

Thn new diesel cost Ford $34m to develop, plus another $124m to modernise and tool up the Dagenham diesels plant to produce it.

The project took five years and involved 700,000 kilometres of durability trials. A four-cylinder unit, it is similar in capacity and configuration to the old 2.4-litre York unit which it replaces, although only two parts—the pushrods and a cam cover plate—are carried over.

Depending on model, Ford claims a 20-24 per cent improvement in fuel economy, better on-road performance thanks to marginally higher brakehorsepower and torque, a 50 per cent increase in engine life (to 160,000 kms) before major overhaul, and a 30 per cent reduction in routine service costs.

Throughout the markets of Western Europe, the engine should enable the Transit, now approaching 20 years old, to halt its decline in sales as a result of a flood of newer competitors emerging, incinding Volkswagen's new TransPorter, Renault's Trafic/Master range and the joint venture panel van produced by Fiat and Peugeot, which is sold under no fewer than four badge names—Fiat, Peugeot, Citroen and Talbot.

When the existing Transit is replaced by a new model—which has been code-named Triton but is again expected to be sold as Transit—in not much more than a year's time, its combination with the DI diesel is likely to prove formidable.

The importance of the unit to Ford in Europe's medium commercials market could hardly be overstated. An industry consensus seems to ho emerging that by the end of the decade the market with the exception of the UK and West Germany, will bave switched to well over 70 per cent diesels.

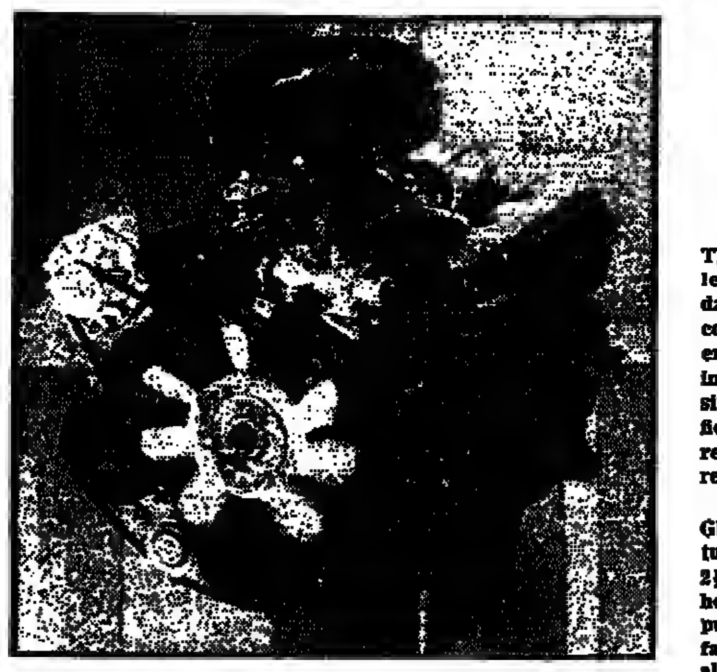
Accordingly, Ford is increasing its Transit diesels capacity by 30 per cent, to 110,000 units a year, in the expectation thet 80 per cent of future Transit production will be of diesel models.

Ford continues to produce a range of diesels for its medium trucks both in Europe and the U.S. But one notable development in tho UK recently has been the adoption of the 10-litre Cummins lightweight truck diesel for its beavier Cargo models, in place of a Deutz air-cooled unit.

The severe setback in the North American market for car diesels, partly due to fears of escalating fuel prices not having been realised (partly, too, due to the disappointing performance of some domestically-produced diesel engines), has not totally discouraged Ford U.S. But in seeking to satisfy demand for reasonabliy economical larger cars, it has drawn on BMW to provide a turbo-diesel for Lincoln Continental and MK 7 cars, the BMW diesel being one of the few with enough power (about 115 bhp) not to compromise performance too seriously.

Meanwhile, Ford has not been inactive on the industrial diesels front. Recently, it began production in the U.S. of a range of six-cylinder, 6.6 litre units in naturally-aspirated and turbo-charged forms.

John Griffiths



Ford's new 2.5 litre direct-injection unit for the Transit van cost $34m to develop

Exploring uses of robots

THE USES seem almost endless, ranging from the mundane to the exotic. In 150 countries, R.A. Lister diesel engines can be found on fishing boats and construction sites, in lighthouses and paddy fields—in fact anywhere that requires cheap, efficient, and reliable power.

Lister, based in Dursley, Gloucestershire, has manufactured a total of more than 2½m engines. It has invested heavily in modern computerised design and manufacturing techniques, and is also exploring how robots can been used to speed up and streamline output.

But while trying to boost productivity and bring down costs further, it is having to struggle in many of its markets. With many world economies eluggish, to say the least, competition is tough, notably from Japanese manufacturers such as Kubota, Mitsubishi, and Yanmar.

West German and Italian manufacturers are also in the fray. In the Far East, not surprisingly, the Japanese are hard to edge out. In the last few years, though, they have also been moving into the U.S. and the Middin East. To get market share, they are often prepared to price some 10 to 15 per cent lower than prevailing levels.

Even so, Lister, with a significant share of the world market in non-automotive engines up to 300 hhp, is fighting hard to keep its place in the industry. In the UK, its share is over 60 per cent. It sells 100,000 engines a year and over 80 per cent of its British output is exported.

In the agriculture, construction, oil exploration and other industries, Lister's dark green engines have a high reputation. Ranging from single-cylinder engines of 2.5 bhp up to turbo-charged six-cylinder units ("big sixes"), of 300 bhp, they are built to run in climatic extremes as low as −40 deg C and as high as +52 deg C.

There are more than 1,000 Lister companies, distributors and dealers around the world. In some remote parts, with specialised uses in navigation or .., ..,telecommunications, engines may run non-stop for a year at a time — equivalent to half a million miles for a vehicle travelling at 50 miles an hour.

Lister has invested more than £20m in the past five years and is still spending at the rate of several millions a year. It is part of the Hawker Siddeley Group, which also owns the Mirrlees Blackstone heavy duty engine company and Petters at the small end of the range.

Lister is mainly a maker of air-cooled engines, though it also produces water-cooled ones, especially for marine and agricultural uses. Just over a year ago, it introduced its new Series T range of two and three-cylinder engines (12-45 bhp), which are smaller, lighter and more powerful than those in the previous ST range.

The T range gives up to 9 per cent more power than the earlier engines, but is 9 per cent more economical on fuel. Through computer-aided design and manufacturing—it uses IBM's CADAM system—Lister has simplified and improved thn engine. There are 12 per cent fewer components and the engines have external fuel-injection, fewer joints, and no internal oil pipes.

Eventually, Lister hopes through use of CADAM to save up to 40 per cent on the time needed to design and make a new engine. But it has also been spending heavily on its foundry at Dursley, now one of Europe's most modern. As well as the UK, where there is also a major plant at Swindon,

The T range gives up to 5 Lister manufactures in the U.S., Mexico, Colombia, Venezuela, South Africa, and Morocco.

In coming years, Lister hopes to cut its manufacturing costs by between 5 and 12 per cent; its engines sell for between £450 and around £6,000. It has also been looking for possible sites for a new plant, such as Indonesia or India, both markets where it would like greater penetration.

Andrew Fisher

Leading maker faces decline in sales

NISSAN is one of the world's largest vehicle producers, ranking third in 1983 behind General Motors and Toyota. In Japan, it ranks second behind Toyota, but is the leading produeer of diesel cars and its associate Nissan Diesel is the leader in beavy truck production.

Nissan Motors was the first Japanese car manufacturer to move into volume production of diesel cars and also the first to export them. The development of this position is linked with its association with Nissan Diesel.

Nissan Diesel originated as Nihon Diesel Industries in 1935, manufacturing truck engines under licence from Krupp in West Germany. It became the Nissan Diesel Motor Company in 1960. Currently, Nissan Motor owns 46 per cent of Nissan Diesel's shares and is a major customer for its output.

Nissan Diesel produces diesel engines in the range 30-500 hp, together with light, medium and heavy trucks and buses. In 1983 a total of 34,010 trucks of over 4,000 kg were produced of which 22,440 were over 7,000 kg. Nissan Diesel achieved a 22 per cent share of the over 7,000 kg domestic market in 1983.

A total of 14,220 buses were produced which amounted to 70 per cent of total Japanese production of diesel buses. In addition to these, Nissan Diesel produced over 46,000 light commercial vehicles for Nissan Motors.

Nissan Diesel produces seven series of engines for automotive, industrial and marine applications ranging from 1.6 to 18 litres. In 1983 a total of 162,000 units were produced, of which 101,000 were sold to original equipment manufacturers (OEMs) of whom by far the largest is Nissan Motors.

Of the 162,000 units, the 30-120 hp SD and ED series accounted for 124,000, the medium-size FD, ND, PD and PE series for 28,000 and the 300-500 hp RD and RE series for 9,500 units. Automotive applications took 124,000 units, industrial 11,500 units and marine 440 units.

Over the past three years, Nissan Diesel's sales revenue has fallen by 9 per cent, largely as a result of declines in engine and large vehicle sales. Net income after taxes has fallen steadily from Y3,109m ($12.2m) in 1979 to Y1,038m in 1983. Operating income in 1983 showed a loss of Y1,000m before tax and extraordinary items.

Until quite recently, Nissan Diesel supplied all the diesel engines used by Nissan Motors including the early diesel versions of the Cedric and Gloria cars.

The use of what were essentially small truck diesels in passenger cars was widespread in Europe until the mid 1970s but the Japanese continued this practice for some years after this. Eventually, Nissan Motors decided that the Nissan Diesel models were no longer acceptable for use in passenger cars and took the decision to manufacture its car diesel units in-house.

At this stage it was faced, as ere all passenger car mannfacturers, with the fundamental decision whether to design a diesel engine from scratch, or whether to modify an existing gasoline engine.

Most manufacturers take the second course which has the benefits of lower investment costs and the opportunity of machining both gasoline and diesel engines on the same transfer line which offers great flexibility in meeting variations in demand for diesel and gasoline models.

Inevitably, there are compromises in converting gasoline units and some manufacturers, notably, Daimler-Benz and Toyota, have chosen to develop unique diesel designs. Nissan Motors, bowever, chose the more widely used approach of modifying existing gasoline models and currently offers three different units, one of which is available in turbocharged, as well as neturally-aspirated form.

The first Nissan Motors car diesel, introduced in 1978 was the LD 28 unit offered in the Cedric, Gloria, Laurel and Skyline models. Nissan claims this was the world's first six-cylinder passenger car diesel.

At 2,792 cc it has an ontput of 91 hp (JIS) at 4,600 rpm, and an excellent reputation as e smooth, quiet unit which from the driver's point of view is virtually indistinguishable from a petrol model.

In 1981, the four-cylinder LD 20 unit was introduced for the Laurel and Skyline cars and in 1983 the first of Nissan's "new generation" models was launched. Based on the CA 20 gasolioe engine, the CD 17 is a high-performance lightweight transverse four-cylinder unit for front-wheel drive cars.

With a rated maximum of 5,000 rpm this unit is the highest-revving production diesel and bas a correspondingly high specific power output.

Nissan Motors has capacity for 300,000 diesel engines per annum and is currently prodncing about 250,000. There are no plans for new capacity at present. Although Nissan Motors is e truly multi-national producer with manufacturing or assembly facilities in 20 countries (including the U.S., Spain, Italy and soon the UK), there is no overseas diesel production. However, Nissan Diesel has opened a plant in Texas.

In addition to cars, Nissan Motors manufactures fork-lift trucks and offers its engines for industrial and marine applications through OEMs. In recent years, Nissan Motors has been actively seeking to develop OEM engine sales to fork lift truck, generator set, construction and marine equipment manufacturers both in Europe and the U.S.

Mike Smith

THE WORLD'S ONLY DIESEL WITH 51 PLUGS.

ASTRA
CAR OF THE YEAR
1985

No, Vauxhall haven't come up with a startling new form of car design.

Although 51 motoring journalists from across Europe might well disagree with us.

For they were the jury that recently voted the new Vauxhall Astra 'Car of the Year 1985.'

All things considered, this sudden rush of enthusiasm is entirely forgivable.

The Astra, after all, does possess the finest aerodynamics in its class (Cd 0.32, for the record).

It offers even more interior space than its best-selling rival.

Whilst its servicing times over 36,000 miles are shorter than any other car of its kind on the road.

Now the 'Car of the Year 1985' is available in a luxuriously appointed diesel version.

Forget the hackneyed comparisons to the London taxi cab.

Beneath the bonnet, there's a smooth-revving 1.6 overhead cam unit that you could easily mistake for one of its petrol-driven cousins.

Particularly when you discover it can achieve a top speed of 94 mph.

Indeed, 'What Car?' felt moved to declare "...at 60 mph the engine is all but inaudible...it pulls without protest even when running at high speeds."

Despite its advanced design, the latest Astra still enjoys all the traditional advantages of diesel power.

The engine is easy to maintain and immensely durable.

It'll return over 60 mpg at 56 mph.

And every time you fill up, you can enjoy the privilege of paying less per gallon than anyone else on the forecourt.

To test drive the new Astra diesel, in either its hatchback or estate versions, contact your local Vauxhall-Opel dealer now.

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ALL FIGURES REFER TO ASTRA DIESEL HATCHBACK. QUOTE FROM WHAT CAR? FEB 1984. MANUFACTURER'S PERFORMANCE FIGURE. DOT FUEL CONSUMPTION TESTS MPG (LITRES/100 KM) FOR ASTRA 1600 D HATCH (4-M): CONSTANT 56 MPH 60.1 (4.7); URBAN CYCLE 39.8 (7.1); CONSTANT 75 MPH 42.0 (6.7). 'CAR OF THE YEAR' IS ORGANISED BY TELEGRAPH SUNDAY MAGAZINE, QUATTRORUOTE, AUTOVISIE, L'EQUIPE, STERN AND VI BILAGARE.